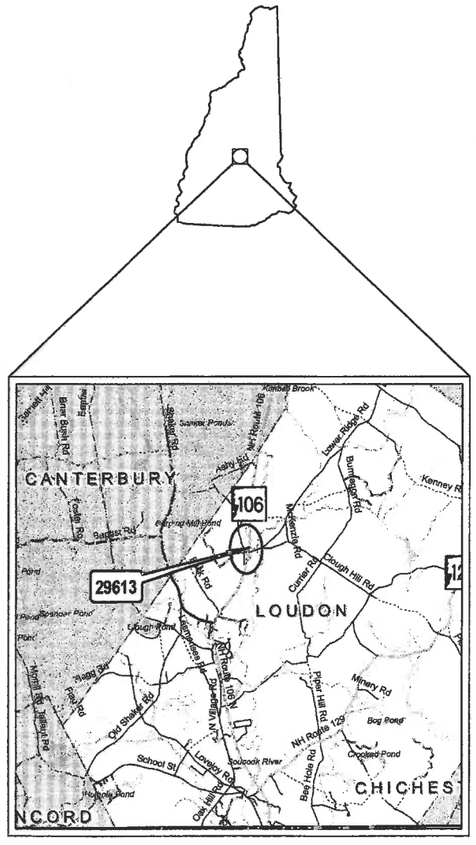
DESIGN DATA	
AVERAGE DAILY TRAFFIC 20 15	17,200
AVERAGE DAILY TRAFFIC 20 35	21,000
PERCENT OF TRUCKS	8.5%
DESIGN SPEED	55 mph
LENGTH OF PROJECT	0.9 miles

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

WETLANDS PLANS
FEDERAL AID PROJECT

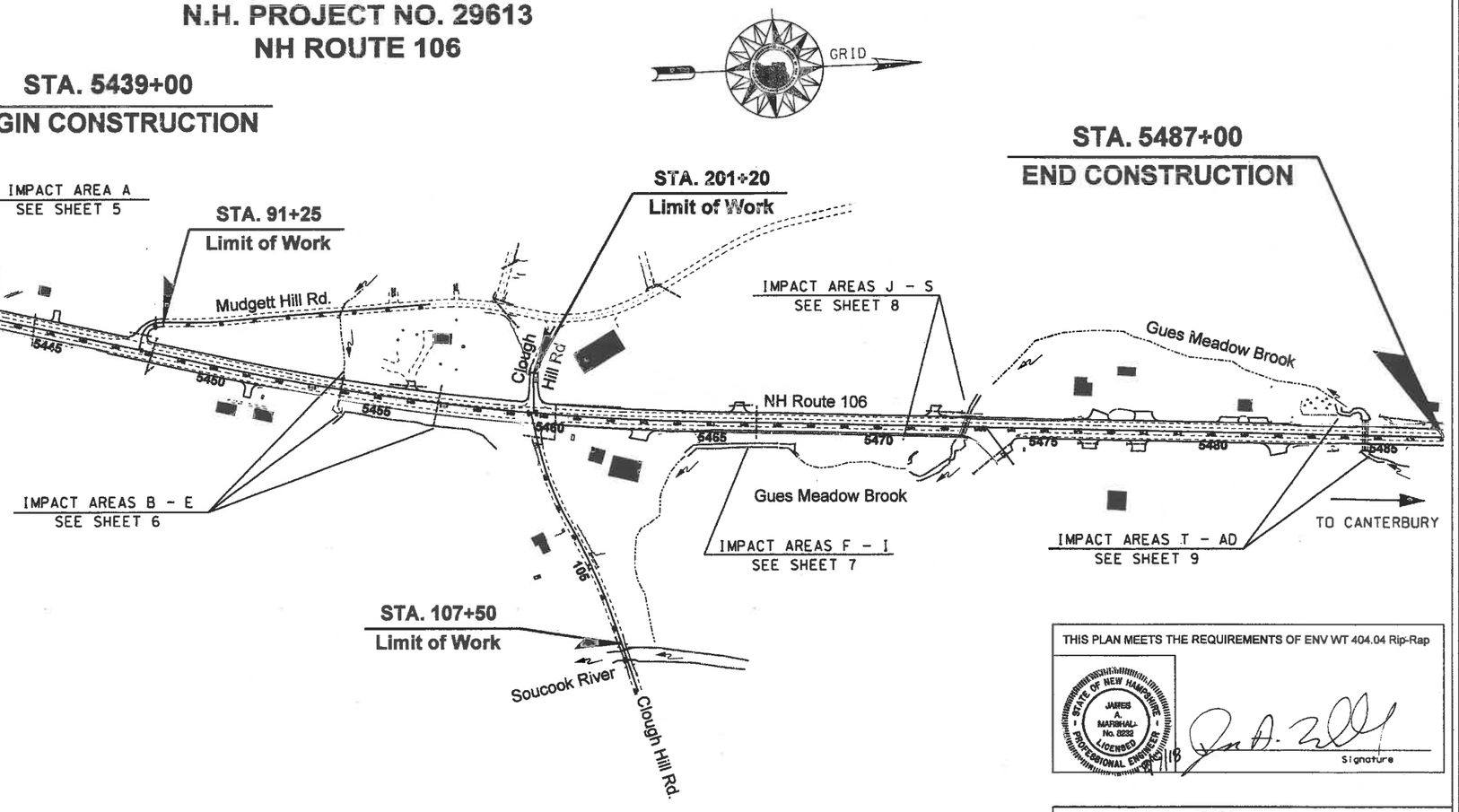
X-A004(201)
N.H. PROJECT NO. 29613
NH ROUTE 106



LOCATION MAP

1 ½ 0 1 2 mi.

GRAPHIC SCALE



INDEX OF SHEETS

DRAWN BY AMC DATE 12/2017
CHECKED BY CAC DATE 1/2018

THIS PLAN MEETS THE REQUIREMENTS OF ENV WT 404.04 Rip-Rap

STATE OF NEW HAMPSHIRE
JAMES A. MARSHALL
No. 8232
LICENSED
PROFESSIONAL ENGINEER

1/18
Signature

2/9/2018

TOWN OF LOUDON
COUNTY OF MERRIMACK
SCALE: 1" = 200'

CHRISTINE S. PERRON

Wetland Delineation by:
McFarland Johnson
DATE: June-July 2016
Christine Perron, CWS
Jed Merrow, CWS
Steve Hoffman

NHDOT
THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

NH ROUTE 106
WETLAND IMPACT PLANS

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A004(201)	29613	1	27

GENERAL

EDGE OF PAVEMENT
TRAVELED WAY

PROPOSED ROADWAY | existing roadway | (pavement removed outside slope lines)

DRIVEWAYS

(label surface type)

BUILDINGS

(building to be removed)

(label house or type of building)

FOUNDATION

(label type)

LEACH FIELD

leach field

BRIDGE CROSSINGS

STREAM | OVERPASS

STEPS AND WALK

(label type)

INTERMITTENT WATER COURSE

SHORE LINE

river/stream | pond | (label name of water body)

POTENTIAL WET AREA SYMBOL

BRUSH OR WOODS LINE

TREES (PLANS)

(deciduous) (coniferous) (stump)

(show station, circumference in feet & type)

TREE OR STUMP (CROSS-SECTIONS)

HEDGE

(label type)

MONITORING WELL

mon W

WELL

W

FLAG POLE

fp

ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

existing | PROPOSED

GUARDRAIL (label type)

bgr
cgr

JERSEY BARRIER

CURB (LABEL TYPE)

STONE WALL

RETAINING WALL (LABEL TYPE)

(points toward retained ground)

FENCE (LABEL TYPE)

SIGNS

(single post)
(double post)

GAS PUMP

gp

FUEL TANK (ABOVE GROUND)

ft (label size & type)

STORAGE TANK FILLER CAP

fc

SEPTIC TANK

S

GRAVE

gr

MAILBOX

mb

VENT PIPE

vp

SATELLITE DISH ANTENNA

da

PHONE

ph

GROUND LIGHT/LAMP POST

gl lp

BORING LOCATION

B

TEST PIT

TP

INTERSTATE NUMBERED HIGHWAY

293

UNITED STATES NUMBERED HIGHWAY

3

STATE NUMBERED HIGHWAY

102

SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE — 2 PUB2E

DELINEATED WETLAND — DW
ORDINARY HIGH WATER — OHW
TOP OF BANK — TOB
TOP OF BANK & ORDINARY HIGH WATER — TOBOHW
NORMAL HIGH WATER — NHW
WIDTH AT BANK FULL — WBF
PRIME WETLAND — PWET
PRIME WETLAND 100' BUFFER — PWET100
NON-JURISDICTIONAL DRAINAGE AREA — NJDA
COWARDIN DISTINCTION LINE — CDL
TIDAL BUFFER ZONE — TBZ
DEVELOPED TIDAL BUFFER ZONE — DTBZ
HIGHEST OBSERVABLE TIDE LINE — HOTL
MEAN HIGH WATER — MHW
MEAN LOW WATER — MLW
VERNAL POOL — VP
SPECIAL AQUATIC SITE — SAS
REFERENCE LINE — REF
WATER FRONT BUFFER — WB50
NATURAL WOODLAND BUFFER — NWB150
PROTECTED SHORELAND — PS250
INVASIVE SPECIES LABEL — I.S. I | I.S. II
INVASIVE SPECIES — INV

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY — FP500
100 YEAR FLOODPLAIN BOUNDARY — FP100
FLOODWAY — FW

ENGINEERING

CONSTRUCTION BASELINE — 30 | 31 | 32
PC. PT. POT (ON CONST BASELINE)
PI (IN CONSTRUCTION BASELINES)
INTERSECTION OR EQUATION OF TWO LINES
ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)
PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)
CLEARING LINE
SLOPE LINE
SLOPE LINE (FILL)
SLOPE LINE (CUT)

SLOPE LINE | CLEARING LINE

PROFILES AND CROSS SECTIONS:
ORIGINAL GROUND ELEVATION (LEFT) 72.5
FINISHED GRADE ELEVATION (RIGHT) 79.14

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	stdsymb1_2	29613	2	27

DRAINAGE

MANHOLE

CATCH BASIN — cb — (existing) — (PROPOSED)

DROP INLET — di

DRAINAGE PIPE (existing) — (label size & type)

DRAINAGE PIPE (PROPOSED)

UNDERDRAIN (existing) W/ FLUSHING BASIN — fb — (label size & type)

UNDERDRAIN (PROPOSED) W/ FLUSHING BASIN

show direction of flow

HEADER (existing & PROPOSED) — (with stone outlet protection)

END SECTION (existing & PROPOSED) — METAL or PLASTIC — RCP

OPEN DITCH (PROPOSED)

EROSION CONTROL/ STONE SLOPE PROTECTION

BOUNDARIES / RIGHT-OF-WAY

RIGHT-OF-WAY LINE — (label type)

RR RIGHT-OF-WAY LINE

PROPERTY LINE — ℄ — ℄

PROPERTY LINE (COMMON OWNER) — Z — Z

TOWN LINE — BOW / CONCORD

COUNTY LINE — COOS / GRAFTON

STATE LINE — MAINE / NEW HAMPSHIRE

NATIONAL FOREST

CONSERVATION LAND — LC — LC

BENCH MARK / SURVEY DISK

BOUND — bnd — (PROPOSED)

STATE LINE/ TOWN LINE MONUMENT — S/L — T/L

NHDOT PROJECT MARKER

IRON PIPE OR PIN — ip

DRILL HOLE IN ROCK — dh

TAX MAP AND LOT NUMBER — 156 / 14 — 1642/341 — 6.80 Ac.±

PROPERTY PARCEL NUMBER — 12

HISTORIC PROPERTY — H

UTILITIES

	existing	PROPOSED
TELEPHONE POLE		
POWER POLE		
JOINT OCCUPANCY		
MISCELLANEOUS/UNKNOWN POLE		
GUY POLE OR PUSH BRACE		

(plot point at face not center of symbol)

LIGHT POLE		
LIGHT ON POWER POLE		
LIGHT ON JOINT POLE		

POLE STATUS: REMOVE, LEAVE, PROPOSED, OR TEMPORARY AS APPLICABLE e.g.:

	R L	P+04 25.0' T+04 25.0'
RAILROAD	(label ownership)	
RAILROAD SIGN		
RAILROAD SIGNAL		
UTILITY JUNCTION BOX	jb	JB
OVERHEAD WIRE	OW OW (label type)	OW OW

UNDERGROUND UTILITIES

WATER (on existing lines label size, type and note if abandoned)	W W	PW PW
SEWER	S S	PS PS
TELEPHONE	T T	PT PT
ELECTRIC	E E	PE PE
GAS	G G	PG PG
LIGHTING	L L	PL PL
INTELLIGENT TRANSPORTATION SYSTEM	ITS ITS	PITS PITS
FIBER OPTIC	FO FO	PFO PFO
WATER SHUT OFF		
GAS SHUT OFF		
HYDRANT		

MANHOLES

SEWER	S	MHS
TELEPHONE	T	MHT
ELECTRICAL	E	MHE
GAS	G	MHG
UNKNOWN	U	

TRAFFIC SIGNALS / ITS

	existing	PROPOSED
MAST ARM (existing)		30' MA (NOTE ANGLE FROM ℄)
OPTICOM RECEIVER		
OPTICOM STROBE		
TRAFFIC SIGNAL		
PEDESTAL WITH PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON UNIT		
SIGNAL CONDUIT	C C C	PC PC PC
CONTROLLER CABINET	cc	CC
METER PEDESTAL	mp	MP
PULL BOX	pb	PB
LOOP DETECTOR (QUADRUPOLE)		(label size)
LOOP DETECTOR (RECTANGULAR)		(label size)
CAMERA POLE (CCTV)		
FIBER OPTIC DELINEATOR	fod	FOD
FIBER OPTIC SPLICE VAULT		SVF
ITS EQUIPMENT CABINET	its	ITS
VARIABLE SPEED LIMIT SIGN		
DYNAMIC MESSAGE SIGN		
ROAD AND WEATHER INFO SYSTEM		

CONSTRUCTION NOTES

CURB MARK NUMBER - BITUMINOUS	B-1
CURB MARK NUMBER - GRANITE	G-1
CLEARING AND GRUBBING AREA	A
DRAINAGE NOTE	1
EROSION CONTROL NOTE	A
FENCING NOTE	A
GUARDRAIL NOTE	1
ITS NOTE	1
LIGHTING NOTE	A
TRAFFIC SIGNAL NOTE	1

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	stdsymb1_2	29613	3	27

WETLAND IMPACT SUMMARY

WETLAND NUMBER	WETLAND CLASSIFICATION	LOCATION	AREA IMPACTS				LINEAR STREAM IMPACTS				
			PERMANENT		TEMPORARY		PERMANENT			TEMPORARY	
			N.H.W.B (NON-WETLAND) (BANK)	N.H.W.B AND A.C.O.E. (WETLAND)	N.H.W.B (NON-WETLAND) (BANK)	N.H.W.B AND A.C.O.E. (WETLAND)	BANK LEFT	BANK RIGHT	CHANNEL	BANK	CHANNEL
			SF	SF	SF	SF	LF	LF	LF	LF	LF
1	PEM1Ex	A		812							
4	R4SB3J	B		104					20		
5	PUBH	C		416							
5	PUBH	D				902					
5	PUBH	D1				553					
3	R4SB3J	E		97					36		
6	R2UB1H	F		1192					201		
6	R2UB1H	G				4433					320
7	PFO1E	H		345							
7	PFO1E	I				938					
7	PFO1E	J		211							
7	PFO1E	K				2271					
6	R2UB1H	L		47					3		
6	R2UB1H	M1		594					22		
6	R2UB1H	M2		297					22		
6	R2UB1H	N				785					26
9	BANK	O	244					22			
9	BANK	P			448					31	
6	R2UB1H	Q				557					31
11	PFO1E	R				689					
11	PFO1E	S		963							
12	PSS1Jb	T				1025					
13	R2UB1Hb	U				982					83
13	R2UB1Hb	V		183					31		
12	PSS1Jb	W		455							
13	R2UB1Hb	X		437					16		
14	BANK	Y			281					39	
14	BANK	Z	73					11			
16	R2UB1H	AA		466					49		
16	R2UB1H	AB				397					30
17	PSS1E	AC		1030							
17	PSS1E	AD				799					
SUB-TOTALS			317	7649	729	14,331	0	33	400	70	490
TOTALS			7,966		15,060		433			560	
TOTAL (PERM + TEMP)			23,026								

WETLAND CLASSIFICATION CODES

PEM1Ex	PALUSTRINE, EMERGENT, PERSISTENT, SEASONALLY FLOODED/SATURATED, EXCAVATED
PFO1E	PALUSTRINE, FORESTED, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
PSS1E	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
PSS1Jb	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, INTERMITTENTLY FLOODED, BEAVER
PUBH	PALUSTRINE, UNCONSOLIDATED BOTTOM, PERMANENTLY FLOODED
R2UB1H	RIVERINE, LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, COBBLE-GRAVEL, PERMANENTLY FLOODED
R2UB1Hb	RIVERINE, LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, COBBLE-GRAVEL, PERMANENTLY FLOODED, BEAVER
R4SB3J	RIVERINE, INTERMITTENT, STREAMBED, COBBLE-GRAVEL, INTERMITTENTLY FLOODED
BANK	BANK

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED - DATE -
NEW DESIGN AMC DATE 12/2017
SHEET CHECKED CAC DATE 1/2018
AS BUILT DETAILS DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

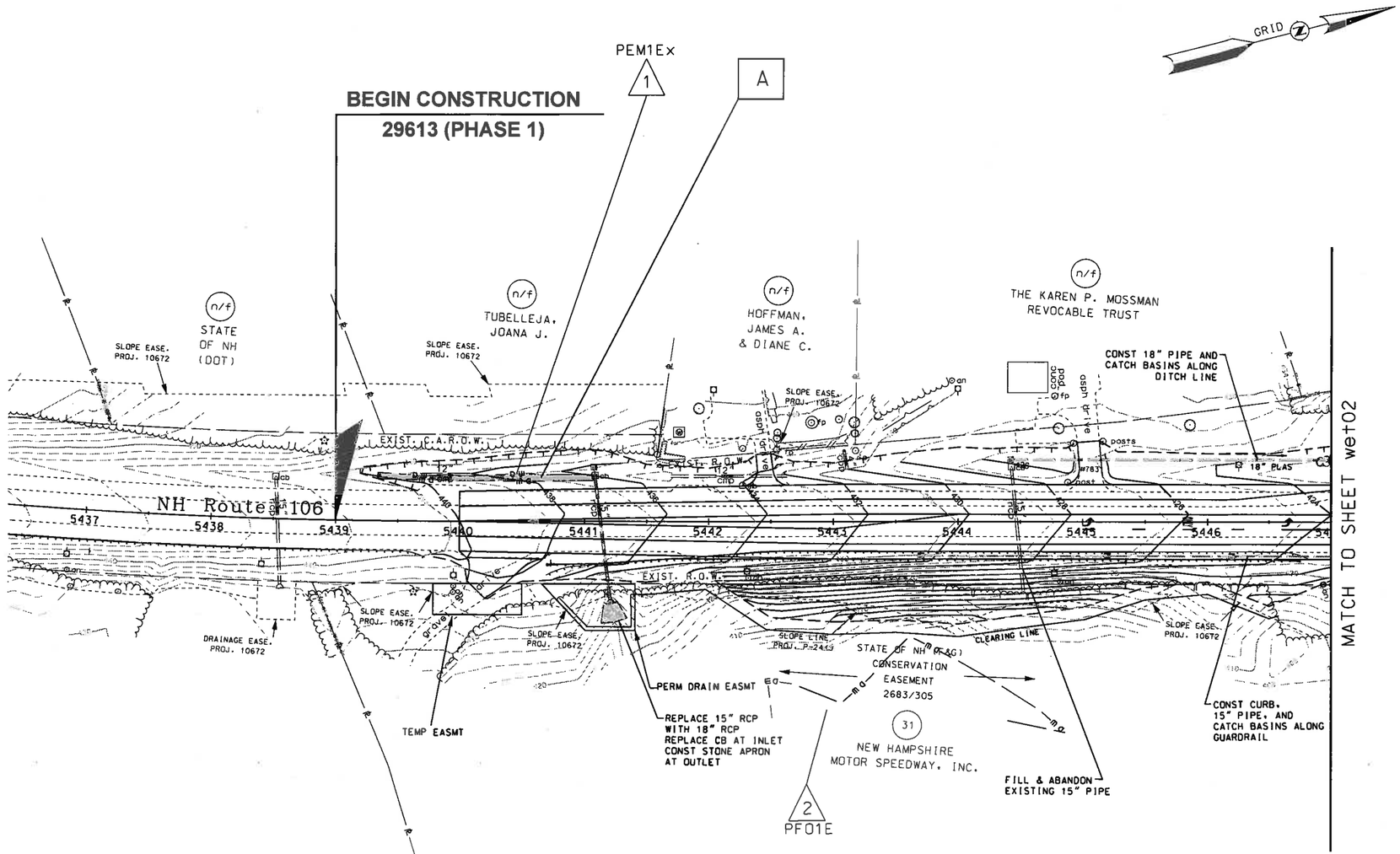
WETLAND IMPACT SUMMARY

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613 wet sum	29613	4	27

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

		DATE
SDR PROCESSED	AMC	
NEW DESIGN	AMC	12/2017
SHEET CHECKED	CAC	1/2018
AS BUILT DETAILS		DATE



LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

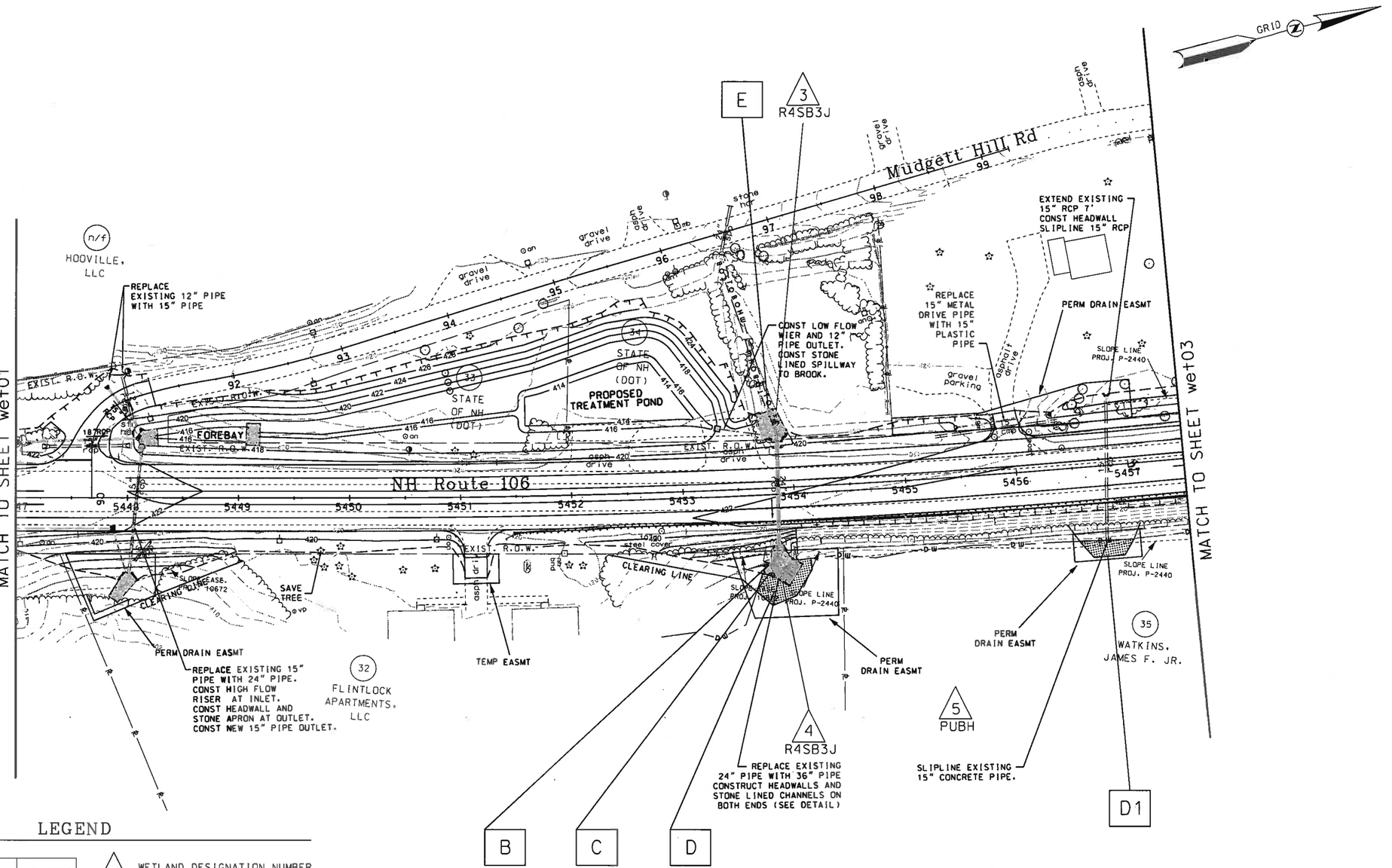
- # — WETLAND DESIGNATION NUMBER
- # — WETLAND IMPACT LOCATION
- # — WETLAND MITIGATION AREA
- MITIGATION

50 0 50 100
SCALE IN FEET

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wet01	29613wet	29613	5	27



LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

- # — WETLAND DESIGNATION NUMBER
- # — WETLAND IMPACT LOCATION
- # — WETLAND MITIGATION AREA
- MITIGATION

SEE DETAILS ON SHEETS 11 AND 12 FOR IMPACT AREAS B, C, D, E

ALSO SEE PIPE DETAIL ON SHEET 20

50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL

NUMBER	DATE	DESCRIPTION	STATION

		DATE
SDR PROCESSED		
NEW DESIGN	AMC	DATE 12/2017
SHEET CHECKED	CAC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

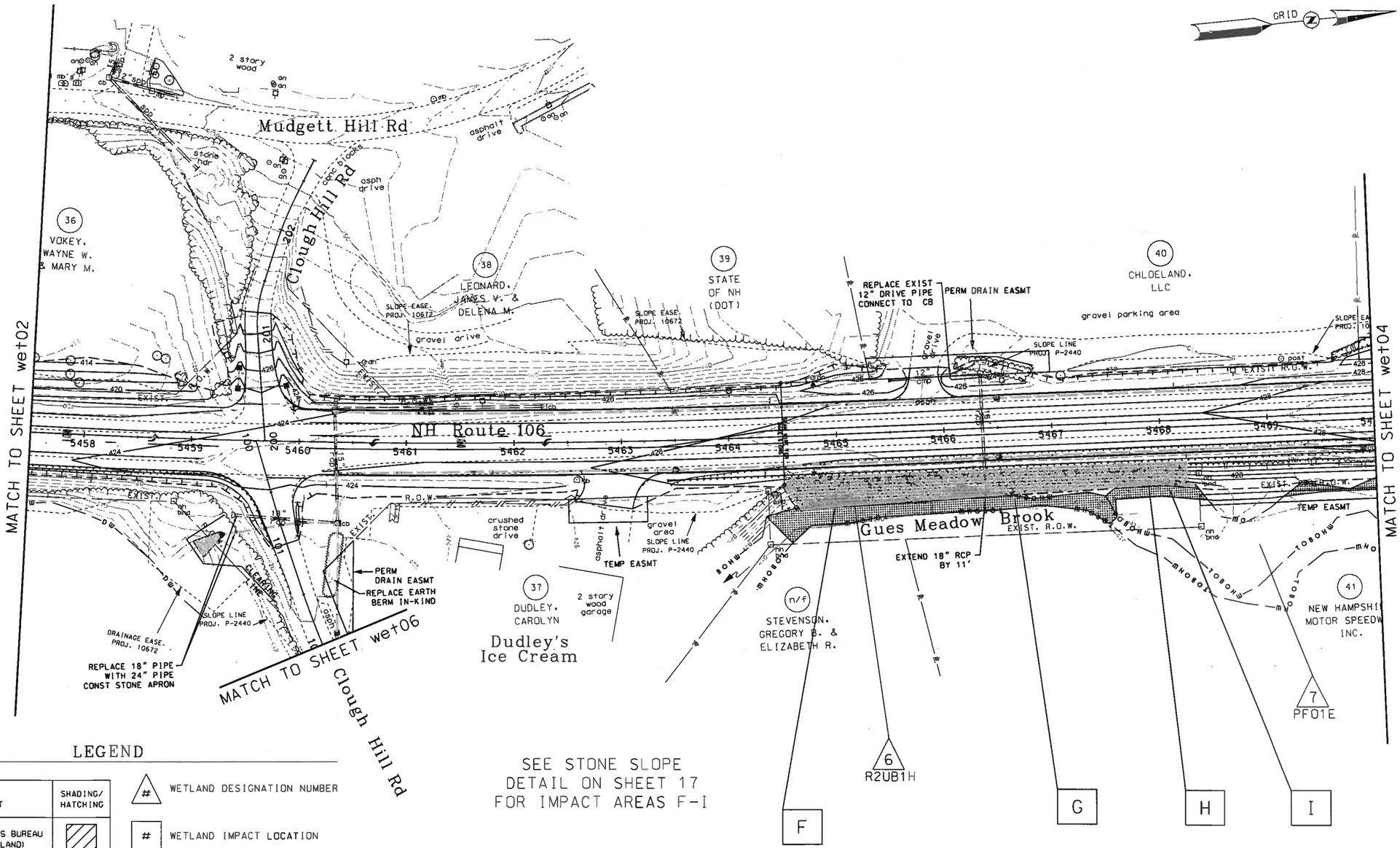
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wet02	29613wet	29613	6	27

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED DATE
NEW DESIGN AMC DATE 12/2017
SHEET CHECKED CAC DATE 1/2018

AS BUILT DETAILS DATE



LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

WETLAND DESIGNATION NUMBER

WETLAND IMPACT LOCATION

WETLAND MITIGATION AREA

MITIGATION

SEE STONE SLOPE DETAIL ON SHEET 17 FOR IMPACT AREAS F-I

50 0 50 100
SCALE IN FEET

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

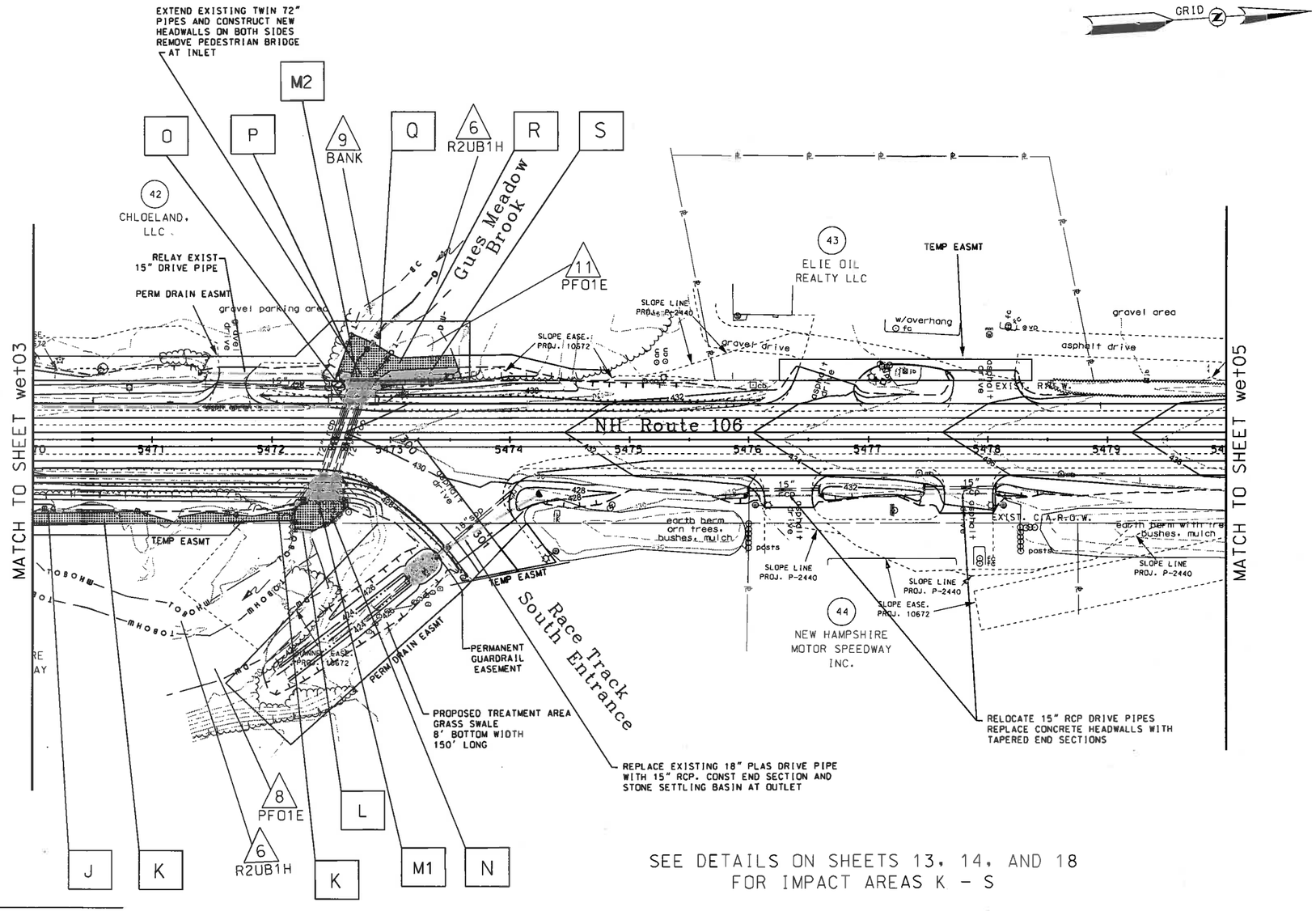
WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wet03	29613wet	29613	7	27

REVISIONS AFTER PROPOSAL

STATION	DESCRIPTION	NUMBER	DATE

SDR PROCESSED — DATE
NEW DESIGN — AMC — DATE 12/2017
SHEET CHECKED — CAC — DATE 1/2018
AS BUILT DETAILS — DATE



SEE DETAILS ON SHEETS 13, 14, AND 18
FOR IMPACT AREAS K - S

LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

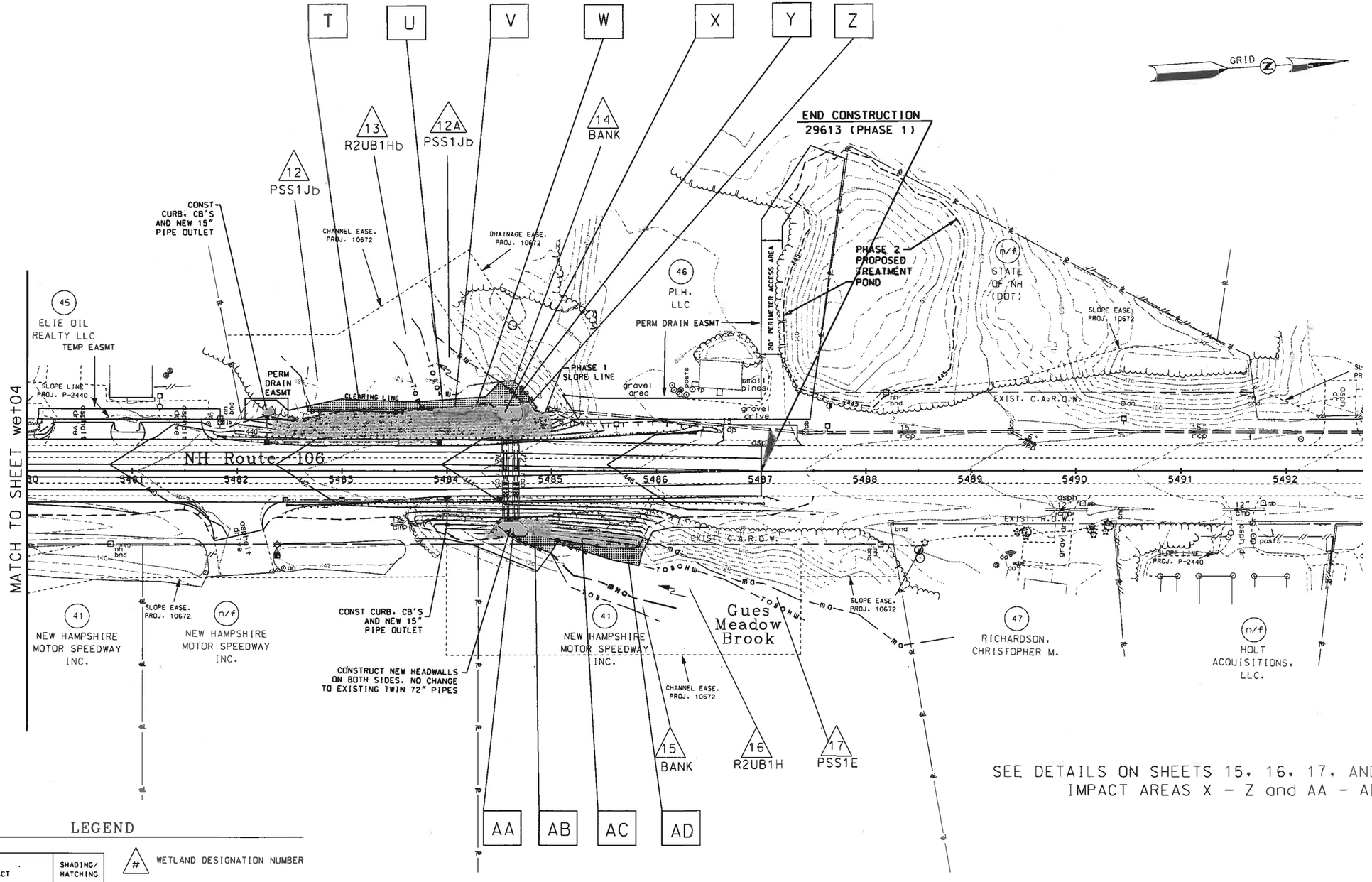
- # — WETLAND DESIGNATION NUMBER
- # — WETLAND IMPACT LOCATION
- # — WETLAND MITIGATION AREA
- MITIGATION

50 0 50 100
SCALE IN FEET

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wet04	29613wet	29613	8	27



SEE DETAILS ON SHEETS 15, 16, 17, AND 18 FOR IMPACT AREAS X - Z and AA - AD

LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

- # — WETLAND DESIGNATION NUMBER
- # — WETLAND IMPACT LOCATION
- # — WETLAND MITIGATION AREA
- MITIGATION

50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL

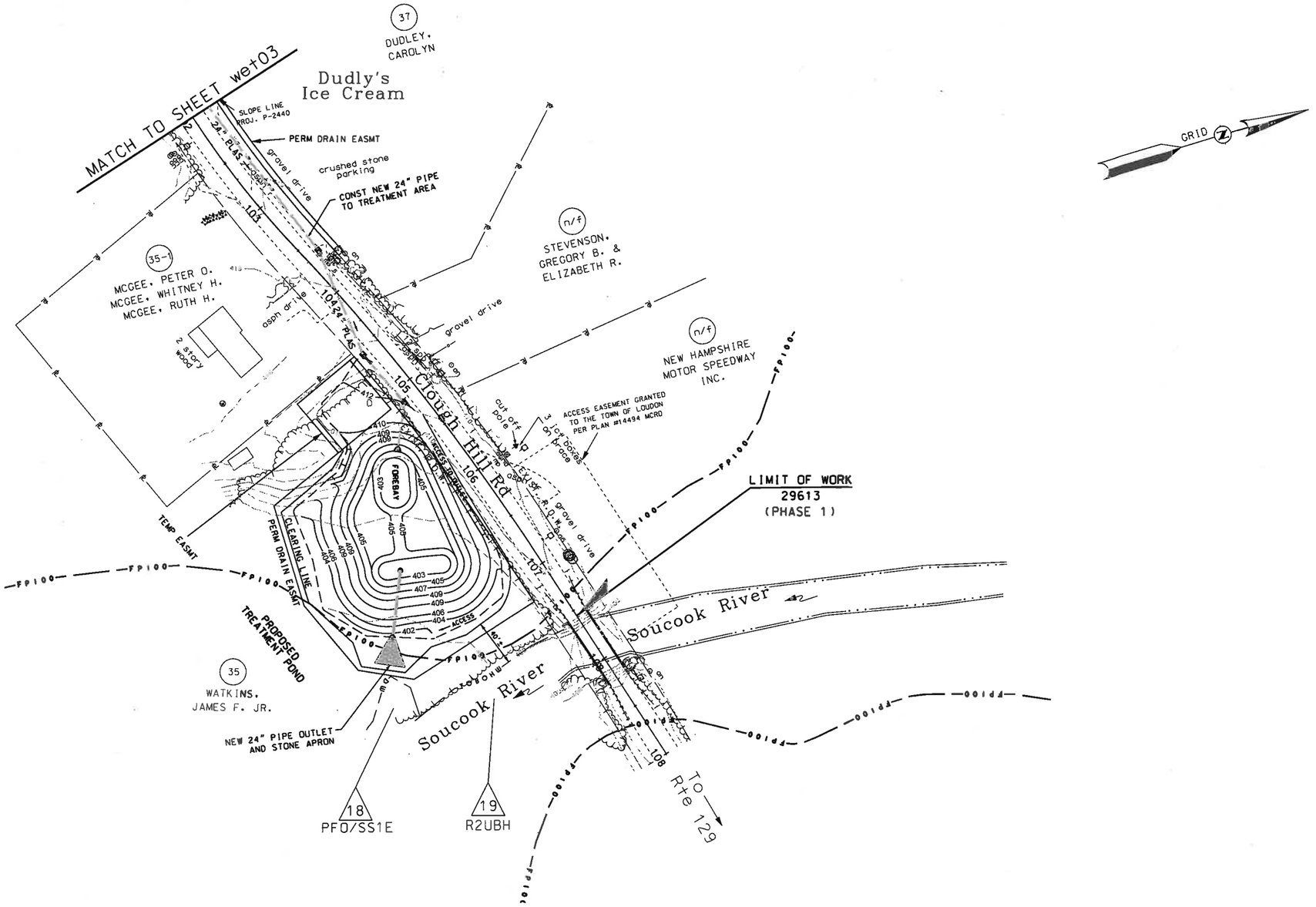
NUMBER	DESCRIPTION	STATION	DATE

SDR PROCESSED DATE
NEW DESIGN AMC DATE 12/2017
SHEET CHECKED CAC DATE 1/2018
AS BUILT DETAILS DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wet05	29613wet	29613	9	27



NO IMPACTS ON THIS SHEET

50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL

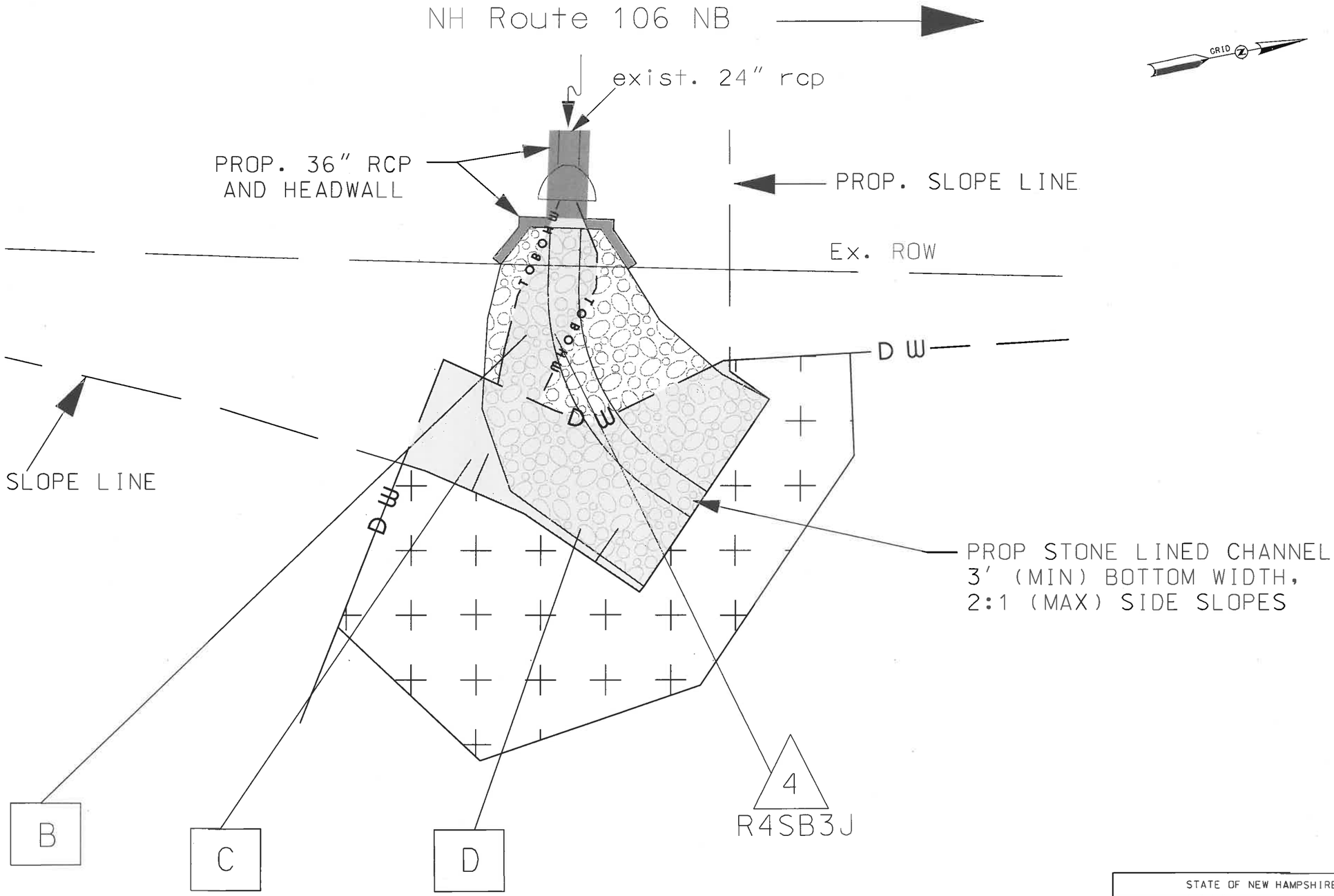
NUMBER	DESCRIPTION	STATION	STATION	DATE

		DATE
SDR PROCESSED		
NEW DESIGN	AMC	DATE 12/2017
SHEET CHECKED	CAC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wet06	29613wet	29613	10	27



REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

		DATE
SDR PROCESSED		
NEW DESIGN	AMC	DATE 12/2017
SHEET CHECKED	CAC	DATE 1/2018
AS BUILT DETAILS		DATE

5 0 5 10
SCALE IN FEET

STATE OF NEW HAMPSHIRE

WETLAND IMPACT DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613pwtdetail01	29613	11	27

PROP. SLOPE LINE

424

422

420

418

416

416

418

420

420

TOB

TOBOHW

TOBOHW

TOBOHW

TOBOHW

TOBOHW

3
R4SB3J

E

GRID N

PROP. SLOPE LINE

EX. R.O.W.

PROP. NH 106 EDGE
OF PAVEMENT

exist. 24" rcp
and headwall

PROPOSED 36" RCP

EMERGENCY SPILLWAY
16' WIDE AT EL 419.5

POND OUTLET LOW
FLOW WIER EL 417.0
AND 12" LOW FLOW
OUTLET PIPE

NH Route 106 SB
STA 5453+85 LT

5 0 5 10
SCALE IN FEET

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

		DATE
SDR PROCESSED		
NEW DESIGN	AMC	DATE 12/2017
SHEET CHECKED	CAC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

WETLAND IMPACT DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613pwtdetail02	29613	12	27

NH Route 106 NB

PROP EDGE OF PAVEMENT AND CURB

exist. headwall

exist. twin 72" rcp's

GRID

6' GRASS PANEL

TOBOHW

TOBOHW

Prop. Slope Line

PROP GUARDRAIL

Exist. conc. pad and elec. outlet

TOBOHW

TOBOHW

TOBOHW

Ex. CAROW

Prop. Slope Line

K

L

M1

N

BOHW

TOBOH

IMPACT FOR BOULDER WIER TO CORRECT PERCH SEE DETAIL ON SHEET 19

6
R2UB1H

STA 5472+50 RT

5 0 5 10
SCALE IN FEET

REVISIONS AFTER PROPOSAL

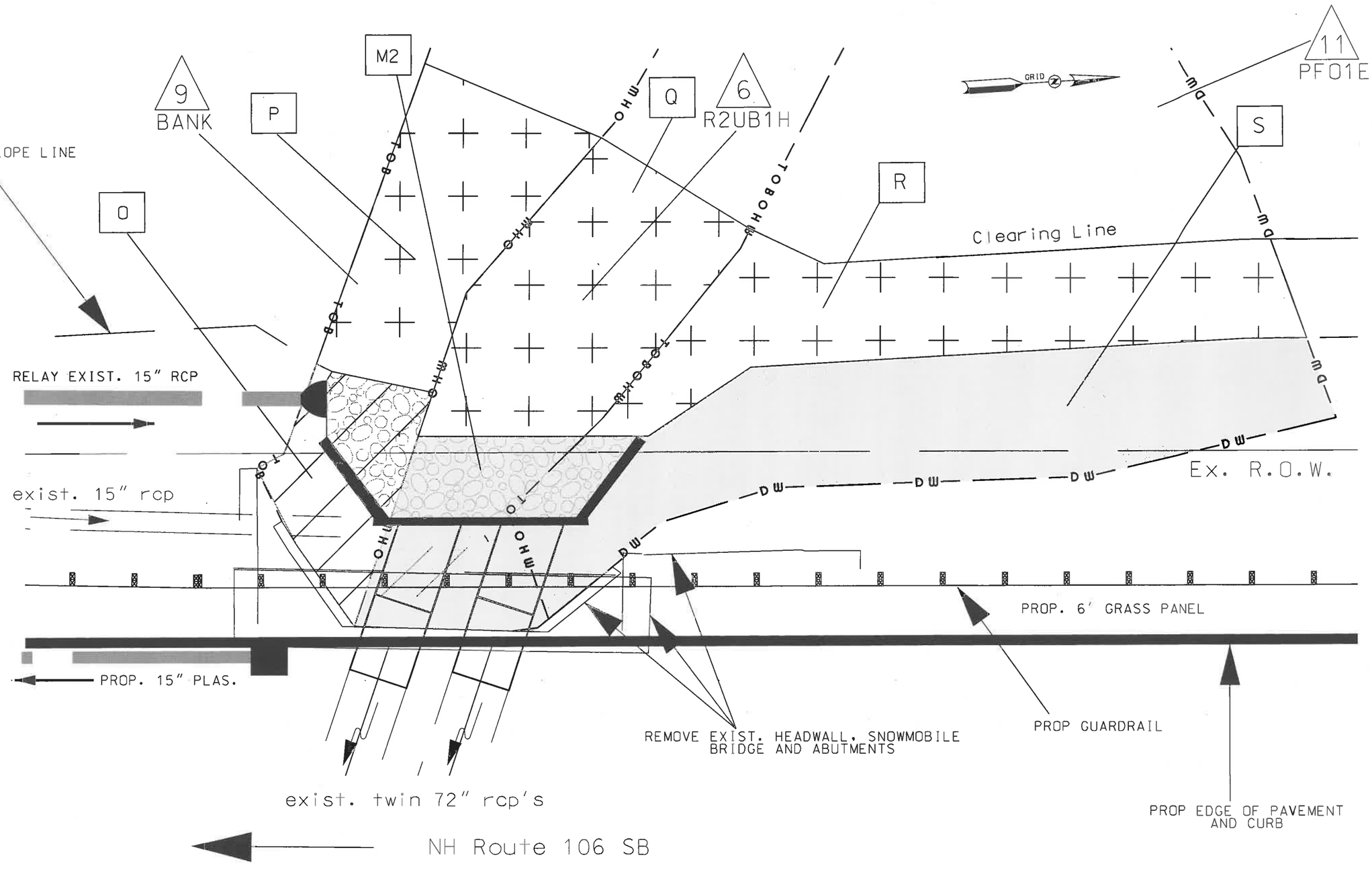
NUMBER	DESCRIPTION	STATION	DATE

SDR PROCESSED		DATE
NEW DESIGN	AMC	DATE 12/2017
SHEET CHECKED	CAC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

WETLAND IMPACT DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613pwtdetail03	29613	13	27



REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	DATE	STATION	STATION

		DATE
SOR PROCESSED		
NEW DESIGN	AMC	DATE 12/2017
SHEET CHECKED	CAC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

WETLAND IMPACT DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613pwtdetail04	29613	14	27

NH Route 106 NB

exist. twin 72" rcp's

exist. headwall

Prop. Headwall

Prop. Slope Line

Ex CAROW

Prop. Concrete Pad
and Footer

TOB

TOB HW

17
PSS1E

AC

PERM IMPACT
CONTINUES TO
STA 5485+88

TEMP IMPACT
CONTINUES TO
STA 5485+92

16
R2UB1H

AA

AB

AD

STA 5484+60 RT

GRID N

5 0 5 10
SCALE IN FEET

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	STATION	DATE

SOR PROCESSED DATE
NEW DESIGN AMC DATE 12/2017
SHEET CHECKED CAC DATE 1/2018

AS BUILT DETAILS DATE

STATE OF NEW HAMPSHIRE

WETLAND IMPACT DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613pwtdetail05	29613	15	27

REVISIONS AFTER PROPOSAL

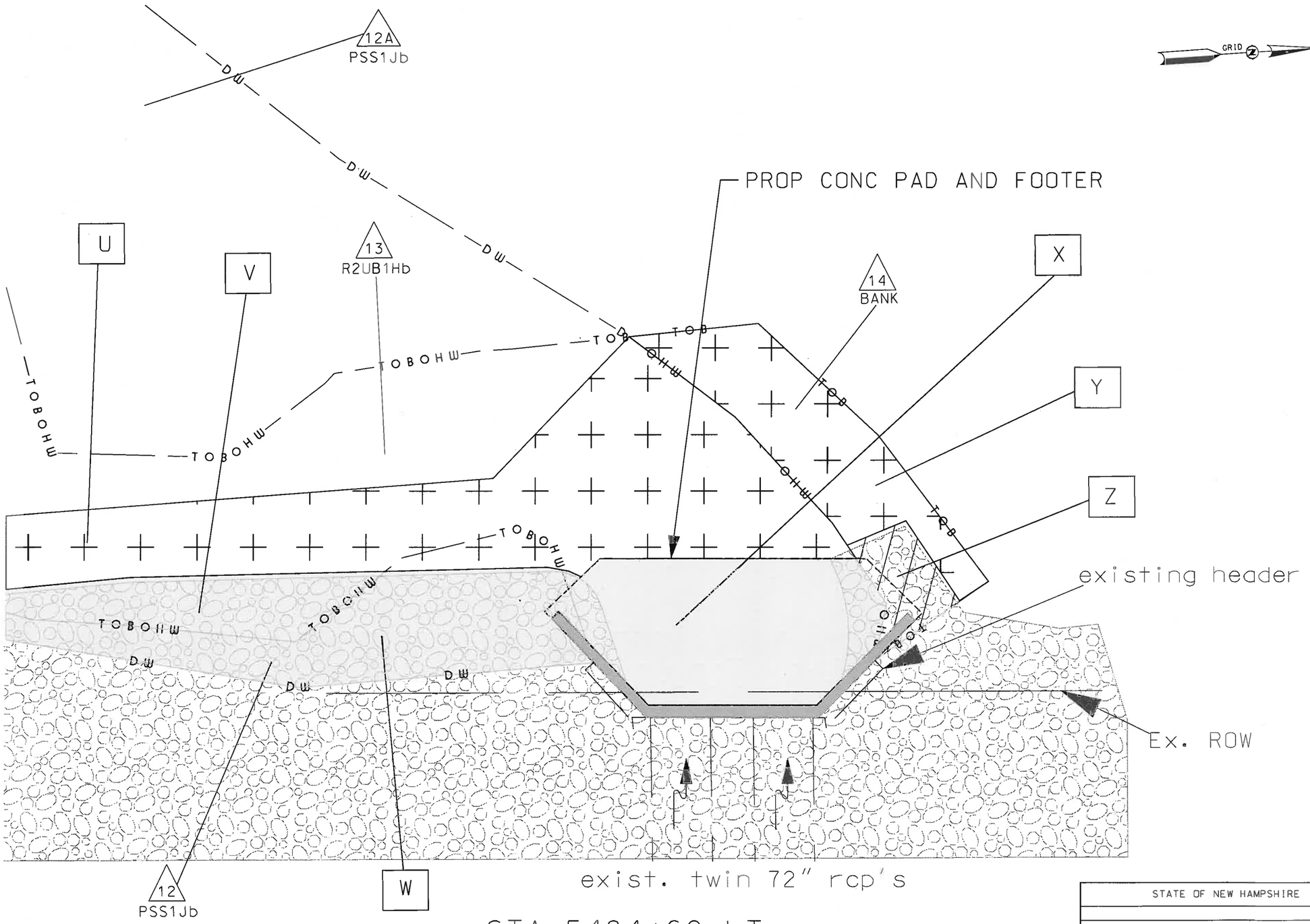
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED — DATE
NEW DESIGN AMC — DATE 12/2017
SHEET CHECKED CAC — DATE 1/2018
AS BUILT DETAILS — DATE

TEMP IMPACT CONTINUES TO STA 5482+65

PERM IMPACT CONTINUES TO STA 5483+50

STONE LINING CONTINUES TO STA 5482+40



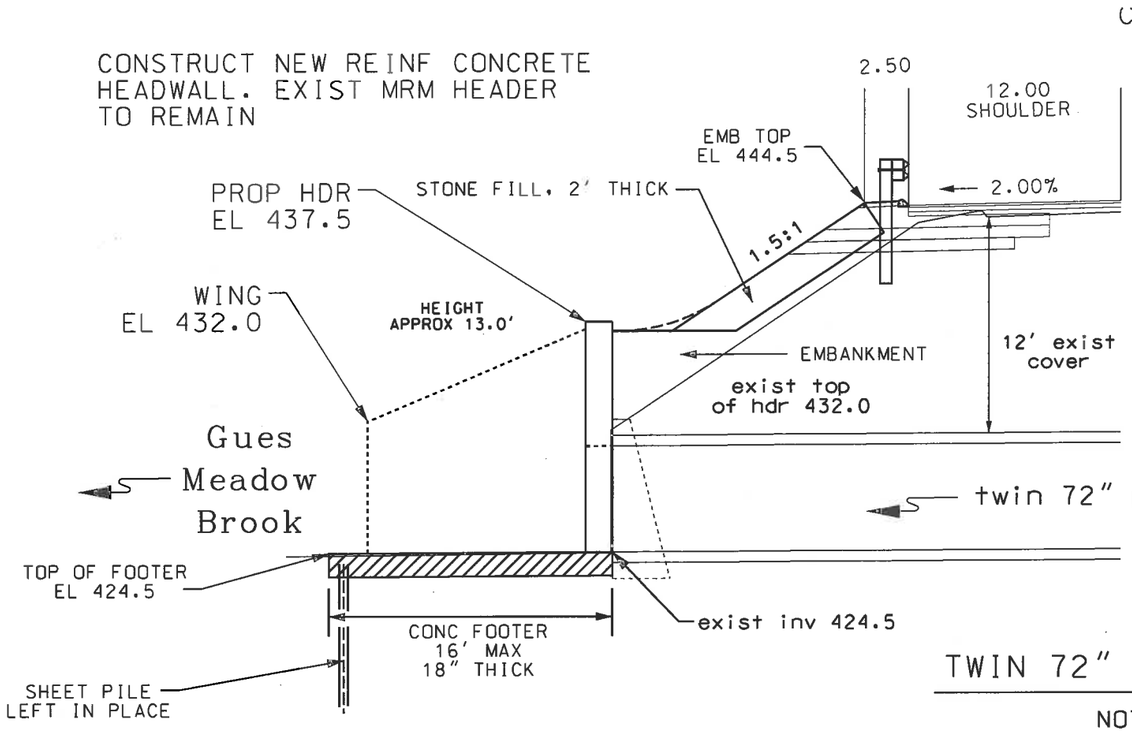
SCALE IN FEET: 5 0 5 10

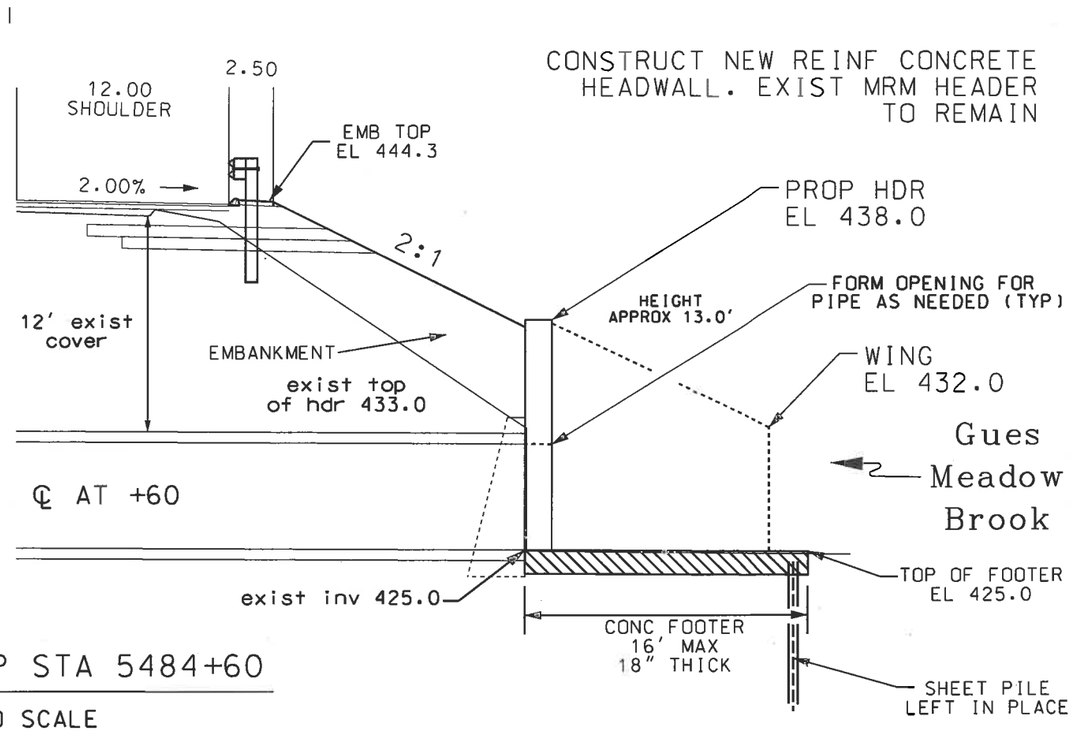
STATE OF NEW HAMPSHIRE

WETLAND IMPACT DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613pwtdetail06	29613	16	27

CONSTRUCT NEW REINF CONCRETE HEADWALL. EXIST MRM HEADER TO REMAIN



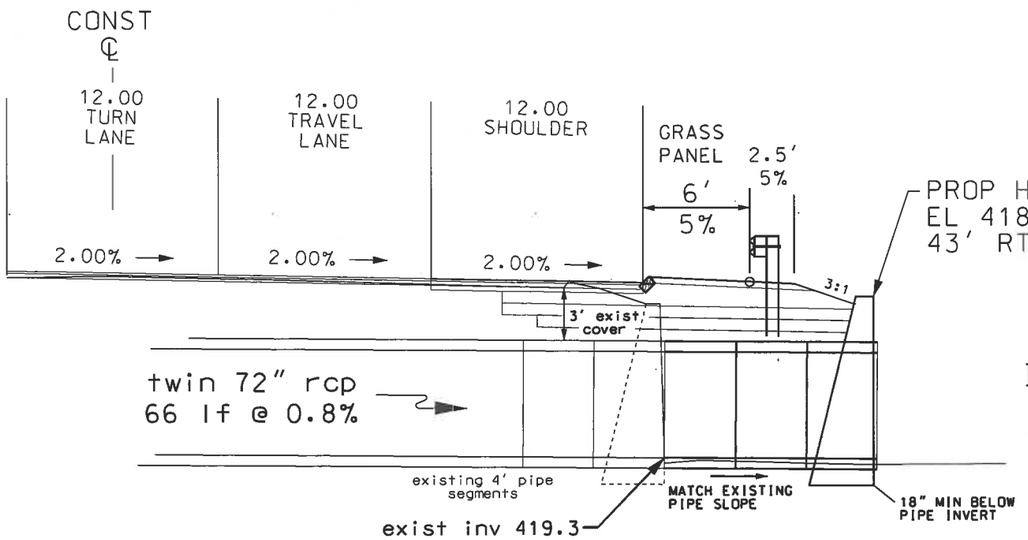


twin 72" rcp ℄ AT +60

TWIN 72" RCP STA 5484+60

NOT TO SCALE

LEFT SIDE SIMILAR
REMOVE EXISTING
SNOWMOBILE BRIDGE
AND CONCRETE ABUTMENTS



Gues
Meadow
Brook

REMOVE EXIST MRM HEADER
AND ONE 4' PIPE SEGMENT FROM
EACH BARREL. PLACE 2 NEW 8'
PIPE SEGMENTS ON EACH BARREL.
CONST NEW PC-9 CONCRETE HEADWALL.

TWIN 72" RCP STA 5472+50

NOT TO SCALE

REVISIONS AFTER PROPOSAL

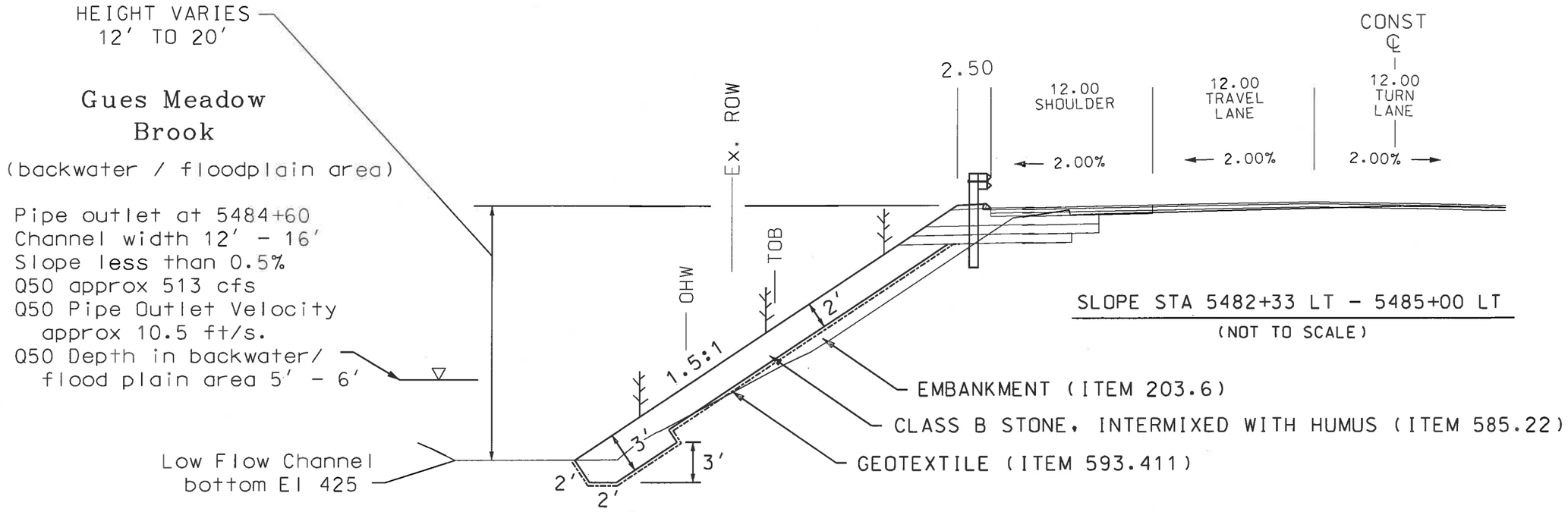
NUMBER	DESCRIPTION	STATION	DATE

		DATE
SDR PROCESSED	CAC	
NEW DESIGN	CAC	DATE 12/2017
SHEET CHECKED	AMC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

CONSTRUCTION DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613condetails	29613	17	27

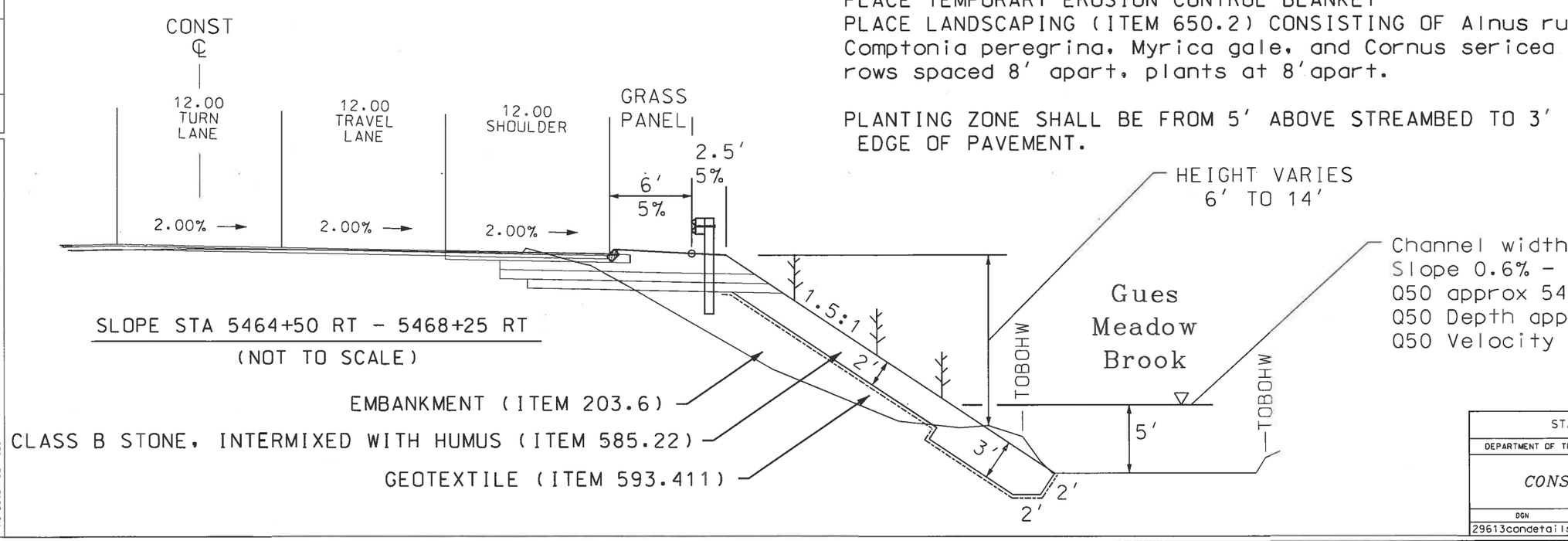


SLOPE STA 5482+33 LT - 5485+00 LT

(NOT TO SCALE)

VEGETATIVE STABILIZATION OF STONE SLOPES - BOTH LOCATIONS:
PLACE 3.5" HUMUS, SEED AND MULCH ON TOP OF STONE
PLACE TEMPORARY EROSION CONTROL BLANKET
PLACE LANDSCAPING (ITEM 650.2) CONSISTING OF Alnus rugosa, Comptonia peregrina, Myrica gale, and Cornus sericea in three rows spaced 8' apart, plants at 8' apart.

PLANTING ZONE SHALL BE FROM 5' ABOVE STREAMBED TO 3' BELOW EDGE OF PAVEMENT.



SLOPE STA 5464+50 RT - 5468+25 RT

(NOT TO SCALE)

REVISIONS AFTER PROPOSAL

NUMBER	DATE	DESCRIPTION	STATION	STATION

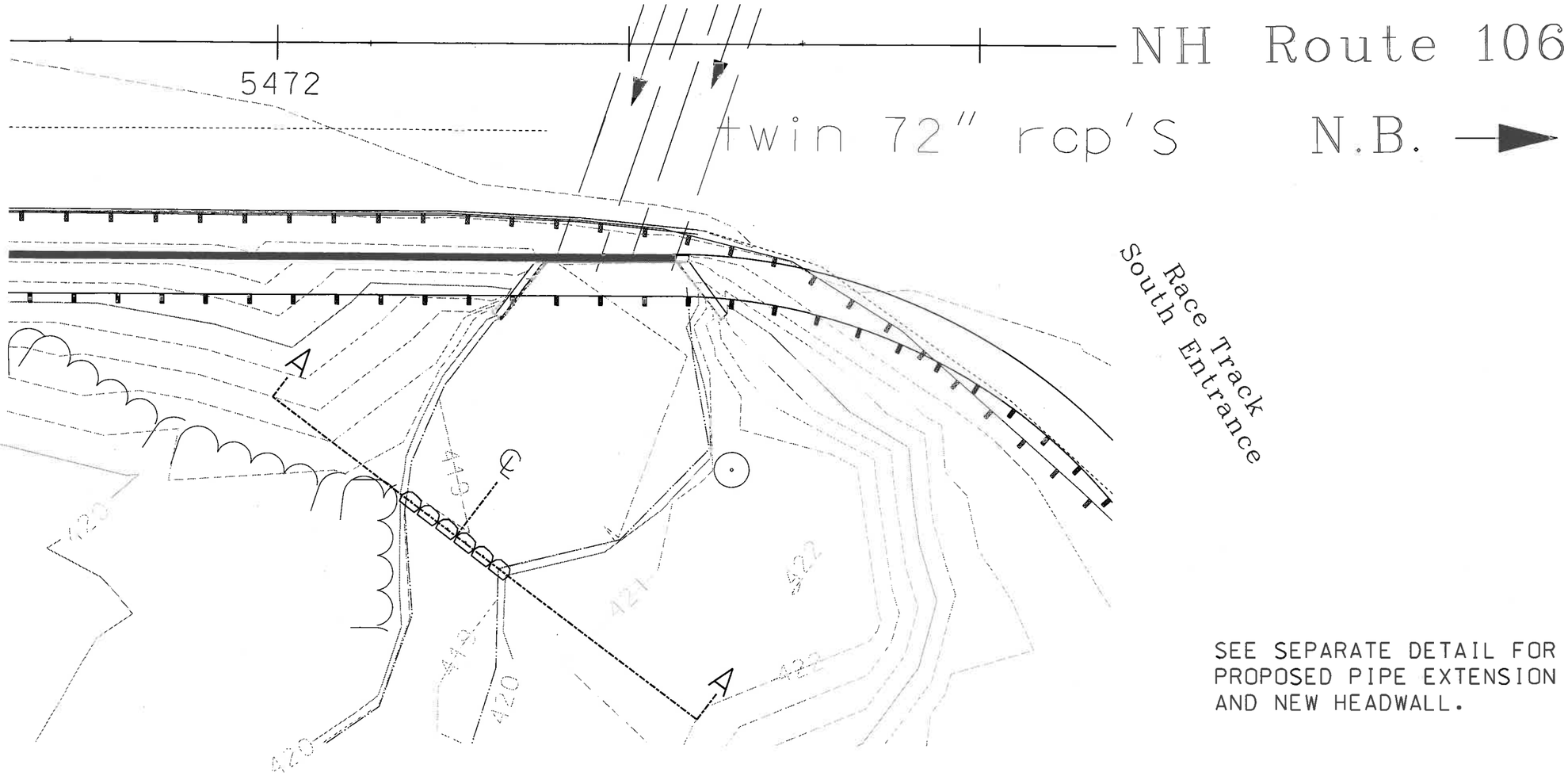
		DATE
SDR PROCESSED		
NEW DESIGN	CAC	12/2017
SHEET CHECKED	AMC	1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

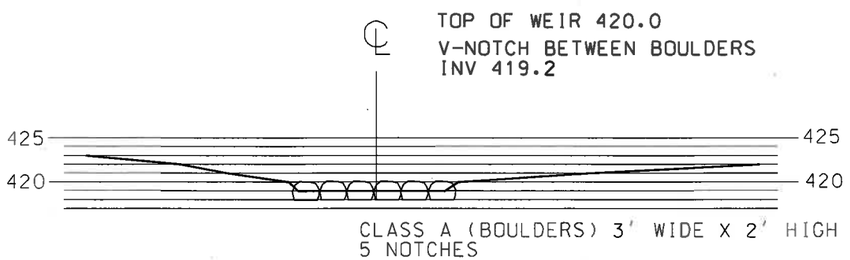
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

CONSTRUCTION DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613condetails	29613	18	27



SEE SEPARATE DETAIL FOR
PROPOSED PIPE EXTENSION
AND NEW HEADWALL.



PROPOSED OUTLET INVERTS 419.2
SECTION A-A BOTTOM WIDTH 16.6'
BASEFLOW 3" DEEP IN BOTH PIPES
= APPROX 2 CFS

SECTION A-A

TWIN 72" RCP STA 5472+50
DOWNSTREAM WEIR TO CORRECT PERCHED OUTLET
NOT TO SCALE

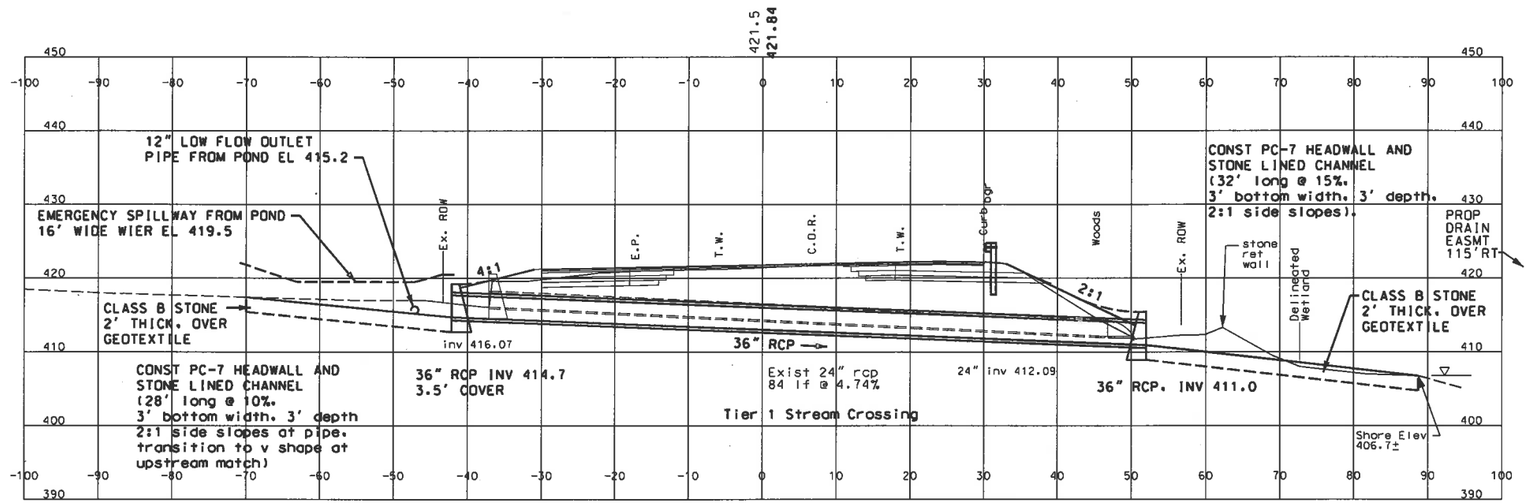
REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	DATE

		DATE
SDR PROCESSED	CAC	
NEW DESIGN	CAC	DATE 12/2017
SHEET CHECKED	AMC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN
CONSTRUCTION DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613condetails	29613	19	27



REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED		DATE
NEW DESIGN	CAC	DATE 1/2018
SHEET CHECKED	AMC	DATE 1/2018
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

CONSTRUCTION DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
29613condetails	29613	20	27

EROSION CONTROL STRATEGIES

1. ENVIRONMENTAL COMMITMENTS:
   - 1.1. THESE GUIDELINES DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ANY CONTRACT PROVISIONS, OR APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
   - 1.2. THIS PROJECT WILL BE SUBJECT TO THE US EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THIS PROJECT IS SUBJECT TO REQUIREMENTS IN THE MOST RECENT CONSTRUCTION GENERAL PERMIT (CGP).
   - 1.3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE NHDES WETLAND PERMIT, THE US ARMY CORPS OF ENGINEERS PERMIT, WATER QUALITY CERTIFICATION AND THE SPECIAL ATTENTION ITEMS INCLUDED IN THE CONTRACT DOCUMENTS.
   - 1.4. ALL STORM WATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION (DECEMBER 2008) (BMP MANUAL) AVAILABLE FROM THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES).
   - 1.5. THE CONTRACTOR SHALL COMPLY WITH RSA 485-A:17, AND ALL, PUBLISHED NHDES ALTERATION OF TERRAIN ENV-WQ 1500 REQUIREMENTS (HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/LEGAL/RULES/INDEX.HTM)
   - 1.6. THE CONTRACTOR IS DIRECTED TO REVIEW AND COMPLY WITH SECTION 107.1 OF THE CONTRACT AS IT REFERS TO SPILLAGE, AND ALSO WITH REGARDS TO EROSION, POLLUTION, AND TURBIDITY PRECAUTIONS.

2. STANDARD EROSION CONTROL SEQUENCING APPLICABLE TO ALL CONSTRUCTION PROJECTS:
   - 2.1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. PERIMETER CONTROLS AND STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN IN THE BMP MANUAL AND AS DIRECTED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARER.
   - 2.2. EROSION, SEDIMENTATION CONTROL MEASURES AND INFILTRATION BASINS SHALL BE CLEANED, REPLACED AND AUGMENTED AS NECESSARY TO PREVENT SEDIMENTATION BEYOND PROJECT LIMITS THROUGHOUT THE PROJECT DURATION.
   - 2.3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 645 OF THE NHDOT SPECIFICATIONS FOR ROAD AND BRIDGES CONSTRUCTION.
   - 2.4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
     - (A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
     - (B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
     - (C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED;
     - (D) TEMPORARY SLOPE STABILIZATION CONFORMING TO TABLE 1 HAS BEEN PROPERLY INSTALLED
   - 2.5. ALL STOCKPILES SHALL BE CONTAINED WITH A PERIMETER CONTROL. IF THE STOCKPILE IS TO REMAIN UNDISTURBED FOR MORE THAN 14 DAYS, MULCHING WILL BE REQUIRED.
   - 2.6. A WATER TRUCK SHALL BE AVAILABLE TO CONTROL EXCESSIVE DUST AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR.
   - 2.7. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN UNTIL THE AREA HAS BEEN PERMANENTLY STABILIZED.
   - 2.8. CONSTRUCTION PERFORMED ANY TIME BETWEEN NOVEMBER 30" AND MAY 1" OF ANY YEAR SHALL BE CONSIDERED WINTER CONSTRUCTION AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.
     - (A) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15", OR WHICH ARE DISTURBED AFTER OCTOBER 15", SHALL BE STABILIZED IN ACCORDANCE WITH TABLE 1.
     - (B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15", OR WHICH ARE DISTURBED AFTER OCTOBER 15", SHALL BE STABILIZED TEMPORARILY WITH STONE OR IN ACCORDANCE WITH TABLE 1.
     - (C) AFTER NOVEMBER 30" INCOMPLETE ROAD SURFACES, WHERE WORK HAS STOPPED FOR THE SEASON, SHALL BE PROTECTED IN ACCORDANCE WITH TABLE 1.
     - (D) WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE PROJECT IS WITHOUT STABILIZATION AT ONE TIME, UNLESS A WINTER CONSTRUCTION PLAN HAS BEEN APPROVED BY NHDOT THAT MEETS THE REQUIREMENTS OF ENV-WQ 1505.02 AND ENV-WQ 1505.05.
     - (E) A SWPPP AMENDMENT SHALL BE SUBMITTED TO THE DEPARTMENT, FOR APPROVAL, ADDRESSING COLD WEATHER STABILIZATION (ENV-WQ 1505.05) AND INCLUDING THE REQUIREMENTS OF NO LESS THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK SCHEDULED AFTER NOVEMBER 30".

GENERAL CONSTRUCTION PLANNING AND SELECTION OF STRATEGIES TO CONTROL EROSION AND SEDIMENT ON HIGHWAY CONSTRUCTION PROJECTS

3. PLAN ACTIVITIES TO ACCOUNT FOR SENSITIVE SITE CONDITIONS:
   - 3.1. CLEARLY FLAG AREAS TO BE PROTECTED IN THE FIELD AND PROVIDE CONSTRUCTION BARRIERS TO PREVENT TRAFFICKING OUTSIDE OF WORK AREAS.
   - 3.2. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS.
   - 3.3. PROTECT AND MAXIMIZE EXISTING NATIVE VEGETATION AND NATURAL FOREST BUFFERS BETWEEN CONSTRUCTION ACTIVITY AND SENSITIVE AREAS.
   - 3.4. WHEN WORK IS PERFORMED IN AND NEAR WATER COURSES, STREAM FLOW DIVERSION METHODS SHALL BE IMPLEMENTED PRIOR TO ANY EXCAVATION OR FILLING.
   - 3.5. WHEN WORK IS PERFORMED WITHIN 50 FEET OF SURFACE WATERS (WETLAND, OPEN WATER OR FLOWING WATER), PERIMETER CONTROL SHALL BE ENHANCED CONSISTENT WITH SECTION 2.1.2.1. OF THE 2012 NPDES CONSTRUCTION GENERAL PERMIT.

4. MINIMIZE THE AMOUNT OF EXPOSED SOIL:
   - 4.1. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS. MINIMIZE THE AREA OF EXPOSED SOIL AT ANY ONE TIME. PHASING SHALL BE USED TO REDUCE THE AMOUNT AND DURATION OF SOIL EXPOSED TO THE ELEMENTS AND VEHICLE TRACKING.
   - 4.2. UTILIZE TEMPORARY MULCHING OR PROVIDE ALTERNATE TEMPORARY STABILIZATION ON EXPOSED SOILS IN ACCORDANCE WITH TABLE 1.
   - 4.3. THE MAXIMUM AMOUNT OF DISTURBED EARTH SHALL NOT EXCEED A TOTAL OF 5 ACRES FROM MAY 1" THROUGH NOVEMBER 30". OR EXCEED ONE ACRE DURING WINTER MONTHS, UNLESS THE CONTRACTOR DEMONSTRATES TO THE DEPARTMENT THAT THE ADDITIONAL AREA OF DISTURBANCE IS NECESSARY TO MEET THE CONTRACTORS CRITICAL PATH METHOD SCHEDULE (CPM), AND THE CONTRACTOR HAS ADEQUATE RESOURCES AVAILABLE TO ENSURE THAT ENVIRONMENTAL COMMITMENTS WILL BE MET.

5. CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT:
   - 5.1. DIVERT OFF SITE RUNOFF OR CLEAN WATER AWAY FROM THE CONSTRUCTION ACTIVITY TO REDUCE THE VOLUME THAT NEEDS TO BE TREATED ON SITE.
   - 5.2. DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM DISTURBED AREAS, SLOPES, AND AROUND ACTIVE WORK AREAS AND TO A STABILIZED OUTLET LOCATION.
   - 5.3. CONSTRUCT IMPERMEABLE BARRIERS AS NECESSARY TO COLLECT OR DIVERT CONCENTRATED FLOWS FROM WORK OR DISTURBED AREAS.
   - 5.4. STABILIZE, TO APPROPRIATE ANTICIPATED VELOCITIES, CONVEYANCE CHANNELS OR PUMPING SYSTEMS NEEDED TO CONVEY CONSTRUCTION STORMWATER TO BASINS AND DISCHARGE LOCATIONS PRIOR TO USE.
   - 5.5. DIVERT OFF-SITE WATER THROUGH THE PROJECT IN AN APPROPRIATE MANNER SO NOT TO DISTURB THE UPSTREAM OR DOWNSTREAM SOILS. VEGETATION OR HYDROLOGY BEYOND THE PERMITTED AREA.

6. PROTECT SLOPES:
   - 6.1. INTERCEPT AND DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM UNPROTECTED AND NEWLY ESTABLISHED AREAS AND SLOPES TO A STABILIZED OUTLET OR CONVEYANCE.
   - 6.2. CONSIDER HOW GROUNDWATER SEEPAGE ON CUT SLOPES MAY IMPACT SLOPE STABILITY AND INCORPORATE APPROPRIATE MEASURES TO MINIMIZE EROSION.
   - 6.3. CONVEY STORMWATER DOWN THE SLOPE IN A STABILIZED CHANNEL OR SLOPE DRAIN.
   - 6.4. THE OUTER FACE OF THE FILL SLOPE SHOULD BE IN A LOOSE RUFFLED CONDITION PRIOR TO TURF ESTABLISHMENT. TOPSOIL OR HUMUS LAYERS SHALL BE TRACKED UP AND DOWN THE SLOPE, DISKED, HARROWED, DRAGGED WITH A CHAIN OR MAT, MACHINE-RAKED, OR HAND-WORKED TO PRODUCE A RUFFLED SURFACE.

7. ESTABLISH STABILIZED CONSTRUCTION EXITS:
   - 7.1. INSTALL AND MAINTAIN CONSTRUCTION EXITS, ANYWHERE TRAFFIC LEAVES A CONSTRUCTION SITE ONTO A PUBLIC RIGHT-OF-WAY.
   - 7.2. SWEEP ALL CONSTRUCTION RELATED DEBRIS AND SOIL FROM THE ADJACENT PAVED ROADWAYS AS NECESSARY.

8. PROTECT STORM DRAIN INLETS:
   - 8.1. DIVERT SEDIMENT LADEN WATER AWAY FROM INLET STRUCTURES TO THE EXTENT POSSIBLE.
   - 8.2. INSTALL SEDIMENT BARRIERS AND SEDIMENT TRAPS AT INLETS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
   - 8.3. CLEAN CATCH BASINS, DRAINAGE PIPES, AND CULVERTS IF SIGNIFICANT SEDIMENT IS DEPOSITED.
   - 8.4. DROP INLET SEDIMENT BARRIERS SHOULD NEVER BE USED AS THE PRIMARY MEANS OF SEDIMENT CONTROL AND SHOULD ONLY BE USED TO PROVIDE AN ADDITIONAL LEVEL OF PROTECTION TO STRUCTURES AND DOWN-GRADIENT SENSITIVE RECEPTORS.

9. SOIL STABILIZATION:
   - 9.1. WITHIN THREE DAYS OF THE LAST ACTIVITY IN AN AREA, ALL EXPOSED SOIL AREAS, WHERE CONSTRUCTION ACTIVITIES ARE COMPLETE, SHALL BE STABILIZED.
   - 9.2. IN ALL AREAS, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED IN ACCORDANCE WITH THE STABILIZATION REQUIREMENTS (SECTION 2.2) OF THE 2012 CGP. (SEE TABLE 1 FOR GUIDANCE ON THE SELECTION OF TEMPORARY SOIL STABILIZATION MEASURES.)
   - 9.3. EROSION CONTROL SEED MIX SHALL BE SOWN IN ALL INACTIVE CONSTRUCTION AREAS THAT WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE AND PRIOR TO SEPTEMBER 15, OF ANY GIVEN YEAR. IN ORDER TO ACHIEVE VEGETATIVE STABILIZATION PRIOR TO THE END OF THE GROWING SEASON.
   - 9.4. SOIL TACKIFIERS MAY BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND REAPPLIED AS NECESSARY TO MINIMIZE SOIL AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

10. RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES:
    - 10.1. TEMPORARY SEDIMENT BASINS (CGP-SECTION 2.1.3.2) OR SEDIMENT TRAPS (ENV-WQ 1506.10) SHALL BE SIZED TO RETAIN, ON SITE, THE VOLUME OF A 2-YEAR 24-HOUR STORM EVENT FOR ANY AREA OF DISTURBANCE OR 3,600 CUBIC FEET OF STORMWATER RUNOFF PER ACRE OF DISTURBANCE, WHICHEVER IS GREATER. TEMPORARY SEDIMENT BASINS USED TO TREAT STORMWATER RUNOFF FROM AREAS GREATER THAN 5-ACRES OF DISTURBANCE SHALL BE SIZED TO ALSO CONTROL STORMWATER RUNOFF FROM A 10-YEAR 24 HOUR STORM EVENT. ON-SITE RETENTION OF THE 10-YEAR 24-HOUR EVENT IS NOT REQUIRED.
    - 10.2. CONSTRUCT AND STABILIZE DEWATERING INFILTRATION BASINS PRIOR TO ANY EXCAVATION THAT MAY REQUIRE DEWATERING.
    - 10.3. TEMPORARY SEDIMENT BASINS OR TRAPS SHALL BE PLACED AND STABILIZED AT LOCATIONS WHERE CONCENTRATED FLOW (CHANNELS AND PIPES) DISCHARGE TO THE SURROUNDING ENVIRONMENT FROM AREAS OF UNSTABILIZED EARTH DISTURBING ACTIVITIES.

11. ADDITIONAL EROSION AND SEDIMENT CONTROL GENERAL PRACTICES:
    - 11.1. USE TEMPORARY MULCHING, PERMANENT MULCHING, TEMPORARY VEGETATIVE COVER, AND PERMANENT VEGETATIVE COVER TO REDUCE THE NEED FOR DUST CONTROL. USE MECHANICAL SWEEPERS ON PAVED SURFACES WHERE NECESSARY TO PREVENT DUST BUILDUP. APPLY WATER, OR OTHER DUST INHIBITING AGENTS OR TACKIFIERS, AS APPROVED BY THE NHDES.
    - 11.2. ALL STOCKPILES SHALL BE CONTAINED WITH TEMPORARY PERIMETER CONTROLS. INACTIVE SOIL STOCKPILES SHOULD BE PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY EROSION CONTROL SEED MIX AND MULCH, SOIL BINDER) OR COVERED WITH ANCHORED TARPS.
    - 11.3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH SECTION 645 OF NHDOT SPECIFICATIONS, WEEKLY AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 IN. OF RAIN PER 24-HOUR PERIOD. EROSION AND SEDIMENT CONTROL MEASURES WILL ALSO BE INSPECTED IN ACCORDANCE WITH THE GUIDANCE MEMO FROM THE NHDES CONTAINED WITHIN THE CONTRACT PROPOSAL AND THE EPA CONSTRUCTION GENERAL PERMIT.
    - 11.4. THE CONTRACTOR SHOULD UTILIZE STORM DRAIN INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING A STORM DRAINAGE SYSTEM PRIOR TO THE PERMANENT STABILIZATION OF THE CONTRIBUTING DISTURBED AREA.
    - 11.5. PERMANENT STABILIZATION MEASURES WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE CONSTRUCTION PLANS TO STABILIZE AREAS. VEGETATIVE STABILIZATION SHALL NOT BE CONSIDERED PERMANENTLY STABILIZED UNTIL VEGETATIVE GROWTH COVERS AT LEAST 85% OF THE DISTURBED AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER PROJECT COMPLETION.
    - 11.6. CATCH BASINS: CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER ANY EXISTING CATCH BASINS DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE TEMPORARY STONE INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE THAT ARE SUBJECT TO SEDIMENT CONTAMINATION.
    - 11.7. TEMPORARY AND PERMANENT DITCHES SHALL BE CONSTRUCTED, STABILIZED AND MAINTAINED IN A MANNER THAT WILL MINIMIZE SCOUR. TEMPORARY AND PERMANENT DITCHES SHALL BE DIRECTED TO DRAIN TO SEDIMENT BASINS OR STORM WATER COLLECTION AREAS.
    - 11.8. WINTER EXCAVATION AND EARTHWORK ACTIVITIES NEED TO BE LIMITED IN EXTENT AND DURATION, TO MINIMIZE POTENTIAL EROSION AND SEDIMENTATION IMPACTS. THE AREA OF EXPOSED SOIL SHALL BE LIMITED TO ONE ACRE, OR THAT WHICH CAN BE STABILIZED AT THE END OF EACH DAY UNLESS A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY THE DEPARTMENT.
    - 11.9. CHANNEL PROTECTION MEASURES SHALL BE SUPPLEMENTED WITH PERIMETER CONTROL MEASURES WHEN THE DITCH LINES OCCUR AT THE BOTTOM OF LONG FILL SLOPES. THE PERIMETER CONTROLS SHALL BE INSTALLED ON THE FILL SLOPE TO MINIMIZE THE POTENTIAL FOR FILL SLOPE SEDIMENT DEPOSITS IN THE DITCH LINE.

BEST MANAGEMENT PRACTICES (BMP) BASED ON AMOUNT OF OPEN CONSTRUCTION AREA

12. STRATEGIES SPECIFIC TO OPEN AREAS LESS THAN 5 ACRES:
    - 12.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500: ALTERATION OF TERRAIN FOR CONSTRUCTION AND USE ALL CONVENTIONAL BMP STRATEGIES.
    - 12.2. SLOPES STEEPER THAN 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING.
    - 12.3. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT ALONE.
    - 12.4. AREAS WHERE HAUL ROADS ARE CONSTRUCTED AND STORMWATER CANNOT BE TREATED THE DEPARTMENT WILL CONSIDER INFILTRATION.
    - 12.5. FOR HAUL ROADS ADJACENT TO SENSITIVE ENVIRONMENTAL AREAS OR STEEPER THAN 5%. THE DEPARTMENT WILL CONSIDER USING EROSION STONE, CRUSHED GRAVEL, OR CRUSHED STONE BASE TO HELP MINIMIZE EROSION ISSUES.
    - 12.6. ALL AREAS THAT CAN BE STABILIZED SHALL BE STABILIZED PRIOR TO OPENING UP NEW TERRITORY.
    - 12.7. DETENTION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE A 2 YEAR STORM EVENT.

13. STRATEGIES SPECIFIC TO OPEN AREAS BETWEEN 5 AND 10 ACRES:
    - 13.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES WILL BE UTILIZED.
    - 13.2. DETENTION BASINS WILL BE CONSTRUCTED TO ACCOMMODATE THE 2-YEAR 24-HOUR STORM EVENT AND CONTROL A 10-YEAR 24-HOUR STORM EVENT.
    - 13.3. SLOPES STEEPER THAN A 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS. OTHER ALTERNATIVE MEASURES, SUCH AS BONDED FIBER MATRIXES (BFMS) OR FLEXIBLE GROWTH MEDIUMS (FGMS) MAY BE UTILIZED, IF MEETING THE NHDES APPROVALS AND REGULATIONS.
    - 13.4. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS.

14. STRATEGIES SPECIFIC TO OPEN AREAS OVER 10 ACRES:
    - 14.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES AND BETWEEN 5 AND 10 ACRES WILL BE UTILIZED.
    - 14.2. THE DEPARTMENT ANTICIPATES THAT SOIL BINDERS WILL BE NEEDED ON ALL SLOPES STEEPER THAN 3:1, IN ORDER TO MINIMIZE EROSION AND REDUCE THE AMOUNT OF SEDIMENT IN THE STORMWATER TREATMENT BASINS.
    - 14.3. THE CONTRACTOR WILL BE REQUIRED TO HAVE AN APPROVED DESIGN IN ACCORDANCE WITH ENV-WQ 1506.12 FOR AN ACTIVE FLOCCULANT TREATMENT SYSTEM TO TREAT AND RELEASE WATER CAPTURED IN STORM WATER BASINS. THE CONTRACTOR SHALL ALSO RETAIN THE SERVICES OF AN ENVIRONMENTAL CONSULTANT WHO HAS DEMONSTRATED EXPERIENCE IN THE DESIGN OF FLOCCULANT TREATMENT SYSTEMS. THE CONSULTANT WILL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION AND MONITORING OF THE SYSTEM.

TABLE 1
GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES[2]				ROLLED EROSION CONTROL BLANKETS[3]			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES[1]												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES	YES	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

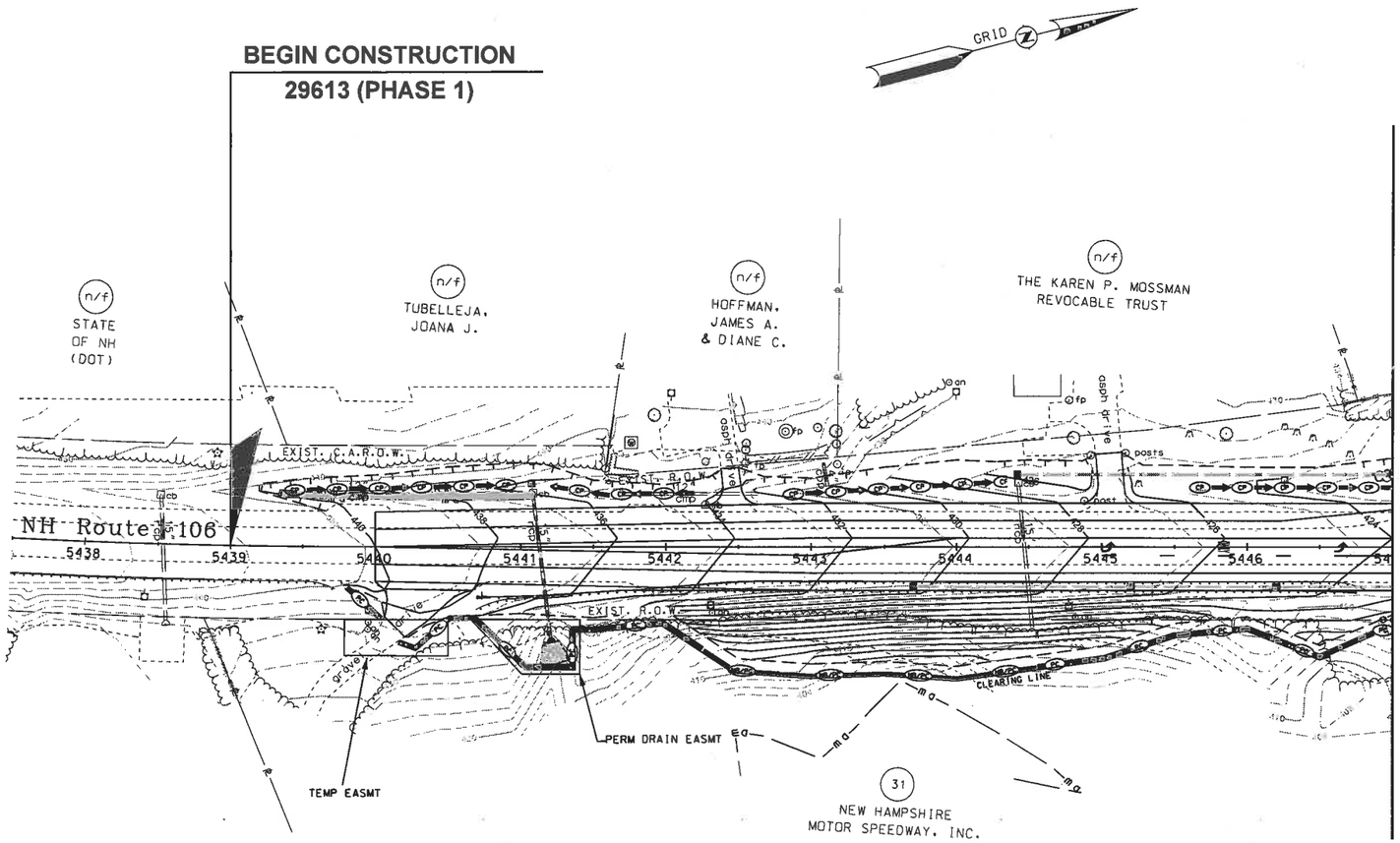
ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

NOTES:
1. ALL SLOPE STABILIZATION OPTIONS ASSUME A SLOPE LENGTH ≤10 TIMES THE HORIZONTAL DISTANCE COMPONENT OF THE SLOPE, IN FEET.
2. PRODUCTS CONTAINING POLYACRYLAMIDE (PAM) SHALL NOT BE APPLIED DIRECTLY TO OR WITHIN 100 FEET OF ANY SURFACE WATER WITHOUT PRIOR WRITTEN APPROVAL FROM THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES.
3. ALL EROSION CONTROL BLANKETS SHALL BE MADE WITH WILDLIFE FRIENDLY BIODEGRADABLE NETTING.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL STRATEGIES

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
12-21-2015	erosstrat	29613	21	27



GENERAL NOTES:

General:
1. A Contractor prepared SWPPP (Item 645.7) will be required for this project.

2. Phasing and erosion controls shall comply with the Erosion Control Strategies sheet, Construction Plans, and all other Contract requirements.

3. The Phase 1 project area (including existing pavement) is about 600,000 SF (13.75 AC). The approximate disturbed area along NH 106 is 154,000 SF on each side (excluding existing pavement). The Clough Hill Rd pond site adds about 31,000 SF of disturbed area, making the total about 339,000 SF (7.8 AC).

Anticipated project sequence:
1. Advance clearing for utility pole relocations. (Utility poles are not in direct conflict with the work). Utility pole relocations will be concurrent throughout the project.

2. Rough grade treatment areas for use as temporary sediment control locations.

3. Construct culvert replacements, extensions, rehabilitations one location at a time, unless otherwise approved. Traffic can be accomodated within the existing pavement width. No need for temporary widenings is anticipated.

4. Construct widened roadway base, slopes, drainage, curb, and guardrail one side at a time.

5. Typical sequence for east or west side:
A. Shift traffic away from work area. Maintain one lane of traffic in each direction.
B. Remove part of shoulder pavement as needed. Construct base courses and slopes, drive pipes, and drive matches.
C. Construct closed drainage systems and outlets.
D. Fine grade road base course, install curb where required.
E. Pave widened areas up to binder course (typically 1.5" below finished grade).
F. Install sign foundations, guardrail.
G. Place permanent slope treatments (humus, seed, mulch, landscaping.
H. Pave final wearing course, place permanent striping and shoulder levelling.

CONSTRUCTION SEQUENCE NOTES:

1. At the beginning of Phase 1, proposed roadway base, slopes, and guardrail will be constructed to accomodate the ultimate pavement width to be constructed under Phase 2.

2. At Sta 5441+05, replace existing 15" rcp with 18" rcp. Construct new catch basin at inlet. Construct end section and stone apron at outlet. No baseflow is anticipated at this location.

3. Regrade west side ditch line and construct closed drainage system from Sta 5444+50 Lt to 5448+10 Lt. Fill and abandon existing 15" rcp at 5444+50. No baseflow is anticipated at this location.

EROSION CONTROL PLAN LEGEND

PC — PERIMETER CONTROL
SILT FENCE
EROSION CONTROL MIX BERM
EROSION CONTROL MIX SOX
TURBIDITY CURTAIN
SHEET PILE
COFFER DAM

NB/PC — NATURAL BUFFER/PERIMETER CONTROL
SILT FENCE
EROSION CONTROL MIX BERM
EROSION CONTROL MIX SOX
TURBIDITY CURTAIN
SHEET PILE
COFFER DAM

CP — CHANNEL PROTECTION
STONE CHECK DAMS
STRAW WATTLES
CHANNEL MATTING
CLASS D EROSION STONE
CLASS C STONE

CWB — CLEAN WATER BYPASS
PUMP THROUGH PIPE
DRAIN THROUGH PIPE OR CHANNEL

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	DATE

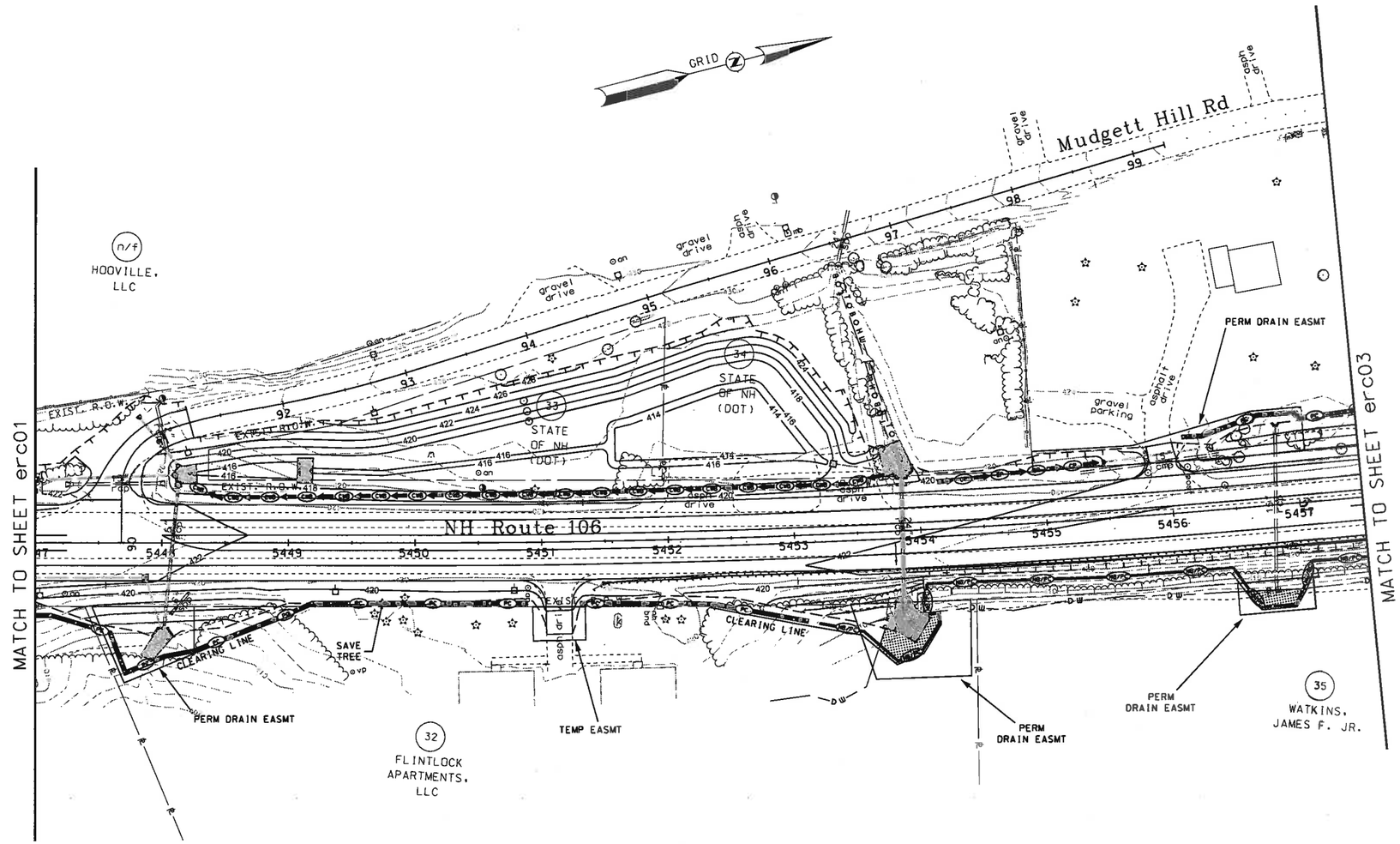
SDR PROCESSED		DATE
NEW DESIGN	CAC	DATE 12/2017
SHEET CHECKED	AMC	DATE 12/2017
AS BUILT DETAILS		DATE

50 0 50 100
SCALE IN FEET

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

Erosion Control Plans

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
erc01	29613erc	29613	22	27



CONSTRUCTION SEQUENCE NOTES:

1. Rough grade treatment area for use as sediment control basin prior to constructing drainage pipe outletting at Sta 5448+05 Lt.
2. At Sta 5448+05, replace existing 15" rcp with 24" rcp. Const high flow riser at 24" pipe inlet. and temporary stone protection at outlet.
   No baseflow is anticipated at this location. Construct stone apron at outlet. Do not construct outlet headwall until adjacent closed drainage outlet is built. Construct diversion structure at inlet. Low flows will drain to the treatment area. High flows and clean water discharge can be directed to the culvert under NH 106 at 5448+05.
3. At 5453+85, install water diversion upstream of existing 24" rcp. Baseflow is anticipated to be less than 1 cfs. Direct clean water to the cross culvert at Sta 5448+05. Replace existing 24" rcp with 36" rcp. Construct stone inlet and outlet channels. Use a silt boom or other approved control to prevent sediment from entering the ponded area at the outlet (wetland #5).
4. At Sta 5456+80, extend upstream side of existing 15" rcp and construct headwall. No baseflow is anticipated at this location. Sliplining of the exsiting 15" rcp is not a critical path item. This work should be scheduled for a time when water level at the outlet is below the pipe invert. Machine access to the outlet should not be required. The temporary impact area is intended for sand bags and/or silt boom if necessary.

EROSION CONTROL PLAN LEGEND

- PC — PERIMETER CONTROL
  - SILT FENCE
  - EROSION CONTROL MIX BERM
  - EROSION CONTROL MIX SOX
  - TURBIDITY CURTAIN
  - SHEET PILE
  - COFFER DAM
- NB/PC — NATURAL BUFFER/PERIMETER CONTROL
  - SILT FENCE
  - EROSION CONTROL MIX BERM
  - EROSION CONTROL MIX SOX
  - TURBIDITY CURTAIN
  - SHEET PILE
  - COFFER DAM
- CP — CHANNEL PROTECTION
  - STONE CHECK DAMS
  - STRAW WATTLES
  - CHANNEL MATTING
  - CLASS D EROSION STONE
  - CLASS C STONE
- CWB — CLEAN WATER BYPASS
  - PUMP THROUGH PIPE
  - DRAIN THROUGH PIPE OR CHANNEL

SCALE IN FEET: 50 0 50 100

REVISIONS AFTER PROPOSAL	NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED		DATE
NEW DESIGN	CAC	DATE 12/2017
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STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

Erosion Control Plans

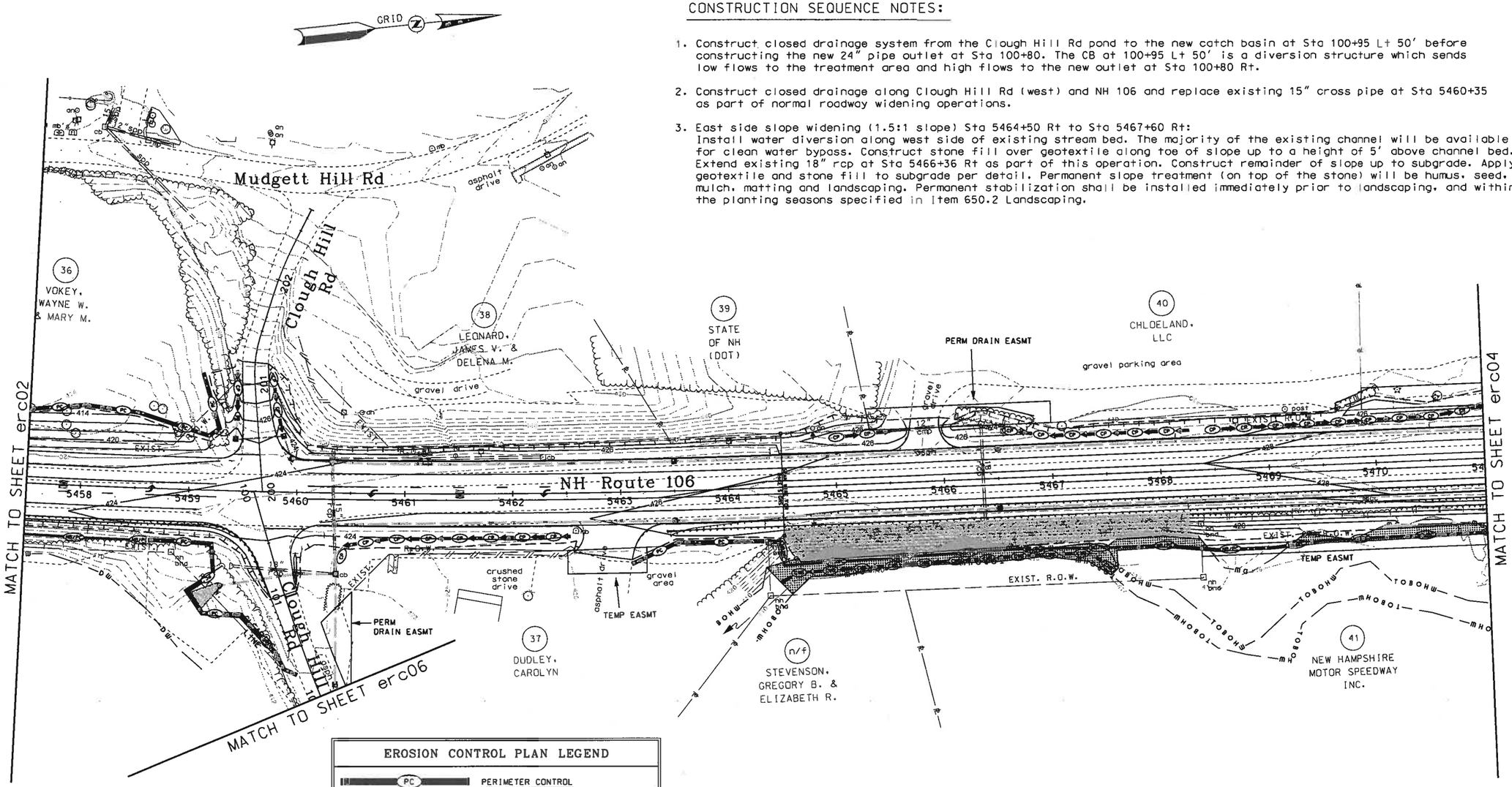
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
erc02	29613erc	29613	23	27

CONSTRUCTION SEQUENCE NOTES:

1. Construct closed drainage system from the Clough Hill Rd pond to the new catch basin at Sta 100+95 Lt 50' before constructing the new 24" pipe outlet at Sta 100+80. The CB at 100+95 Lt 50' is a diversion structure which sends low flows to the treatment area and high flows to the new outlet at Sta 100+80 Rt.

2. Construct closed drainage along Clough Hill Rd (west) and NH 106 and replace existing 15" cross pipe at Sta 5460+35 as part of normal roadway widening operations.

3. East side slope widening (1.5:1 slope) Sta 5464+50 Rt to Sta 5467+60 Rt:
   Install water diversion along west side of existing stream bed. The majority of the existing channel will be available for clean water bypass. Construct stone fill over geotextile along toe of slope up to a height of 5' above channel bed. Extend existing 18" rcp at Sta 5466+36 Rt as part of this operation. Construct remainder of slope up to subgrade. Apply geotextile and stone fill to subgrade per detail. Permanent slope treatment (on top of the stone) will be humus, seed, mulch, matting and landscaping. Permanent stabilization shall be installed immediately prior to landscaping, and within the planting seasons specified in Item 650.2 Landscaping.



EROSION CONTROL PLAN LEGEND

- PC — PERIMETER CONTROL
  - SILT FENCE
  - EROSION CONTROL MIX BERM
  - EROSION CONTROL MIX SOX
  - TURBIDITY CURTAIN
  - SHEET PILE
  - COFFER DAM
- NB/PC — NATURAL BUFFER/PERIMETER CONTROL
  - SILT FENCE
  - EROSION CONTROL MIX BERM
  - EROSION CONTROL MIX SOX
  - TURBIDITY CURTAIN
  - SHEET PILE
  - COFFER DAM
- CP — CHANNEL PROTECTION
  - STONE CHECK DAMS
  - STRAW WATTLES
  - CHANNEL MATTING
  - CLASS D EROSION STONE
  - CLASS C STONE
- CWB — CLEAN WATER BYPASS
  - PUMP THROUGH PIPE
  - DRAIN THROUGH PIPE OR CHANNEL

50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL

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STATE OF NEW HAMPSHIRE
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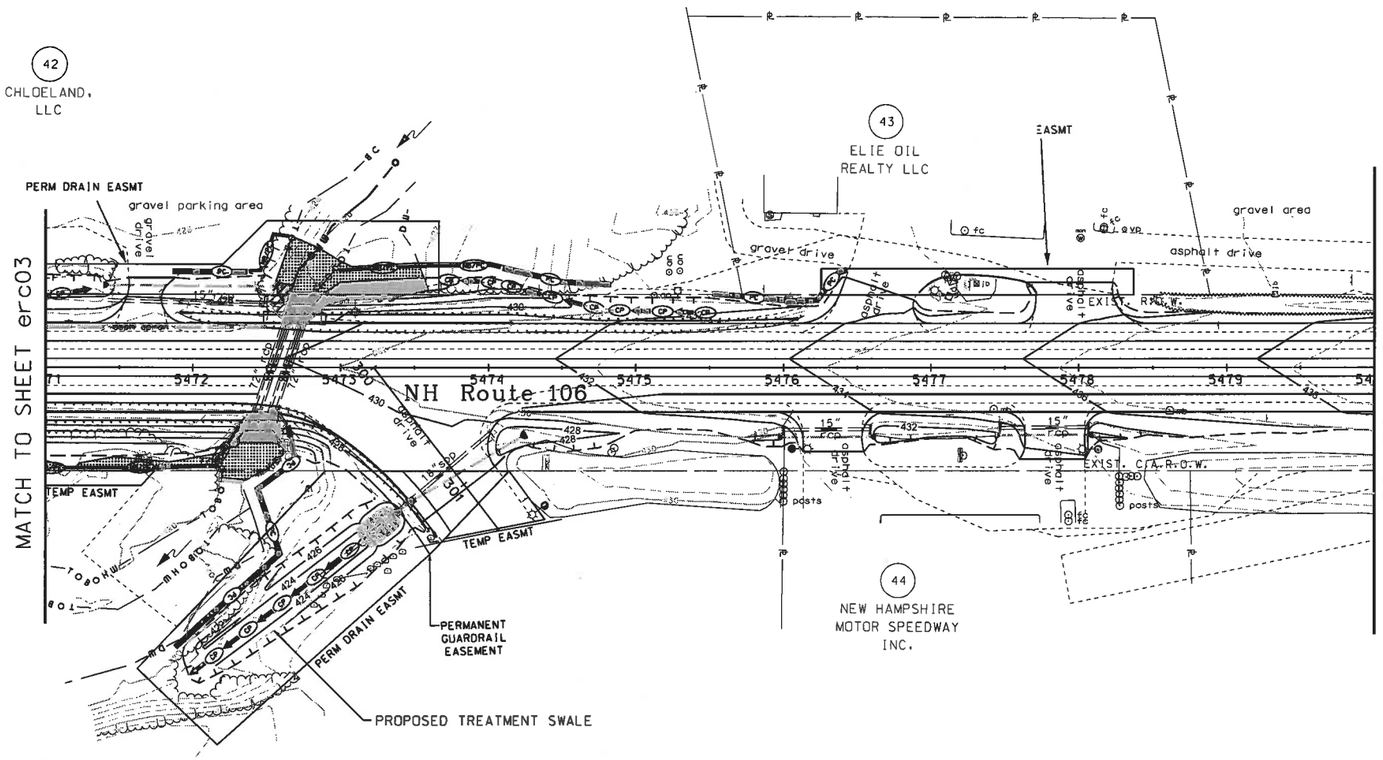
Erosion Control Plans

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
erc03	29613erc	29613	24	27



CONSTRUCTION SEQUENCE NOTES:

1. Rough grade proposed treatment swale for use as a sediment control basin.

2. Twin 72" Pipe Extension and Headwall Construction:
A. Install perimeter controls, including controls along the adjacent slope widening.
B. Install Item 503.10x Water Diversion at the inlet.
C. Clean water shall be routed through the existing pipes via a temporary pipe or pump(s).
D. Baseflow at this location is estimated at 2 cfs.
E. Construct one side at a time unless otherwise approved.

3. Outlet side:
A. Install Item 503.20x Cofferdam around the pipe extension and headwall footing excavation area.
B. Remove existing stone headwall and one 4' section of pipe from each barrel.
C. Add two 8' sections of pipe to each barrel.
D. Construct new headwall.
E. Backfill behind headwall. Apply temporary slope stabilization.
F. Install rock weir in channel downstream of the pipe outlets.

4. Inlet side:
A. A. Install Item 503.20x Cofferdam around the pipe extension and headwall footing excavation area.
B. Remove snowmobile bridge and abutments.
C. Remove existing stone headwall and one 4' section of pipe from each barrel.
D. Add two 8' sections of pipe to each barrel.
E. Construct new headwall.
F. Backfill behind headwall. Apply temporary slope stabilization.

EROSION CONTROL PLAN LEGEND

- PC — PERIMETER CONTROL
  - SILT FENCE
  - EROSION CONTROL MIX BERM
  - EROSION CONTROL MIX SOX
  - TURBIDITY CURTAIN
  - SHEET PILE
  - COFFER DAM
- NB/PC — NATURAL BUFFER/PERIMETER CONTROL
  - SILT FENCE
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  - EROSION CONTROL MIX SOX
  - TURBIDITY CURTAIN
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  - COFFER DAM
- CP — CHANNEL PROTECTION
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50 0 50 100
SCALE IN FEET

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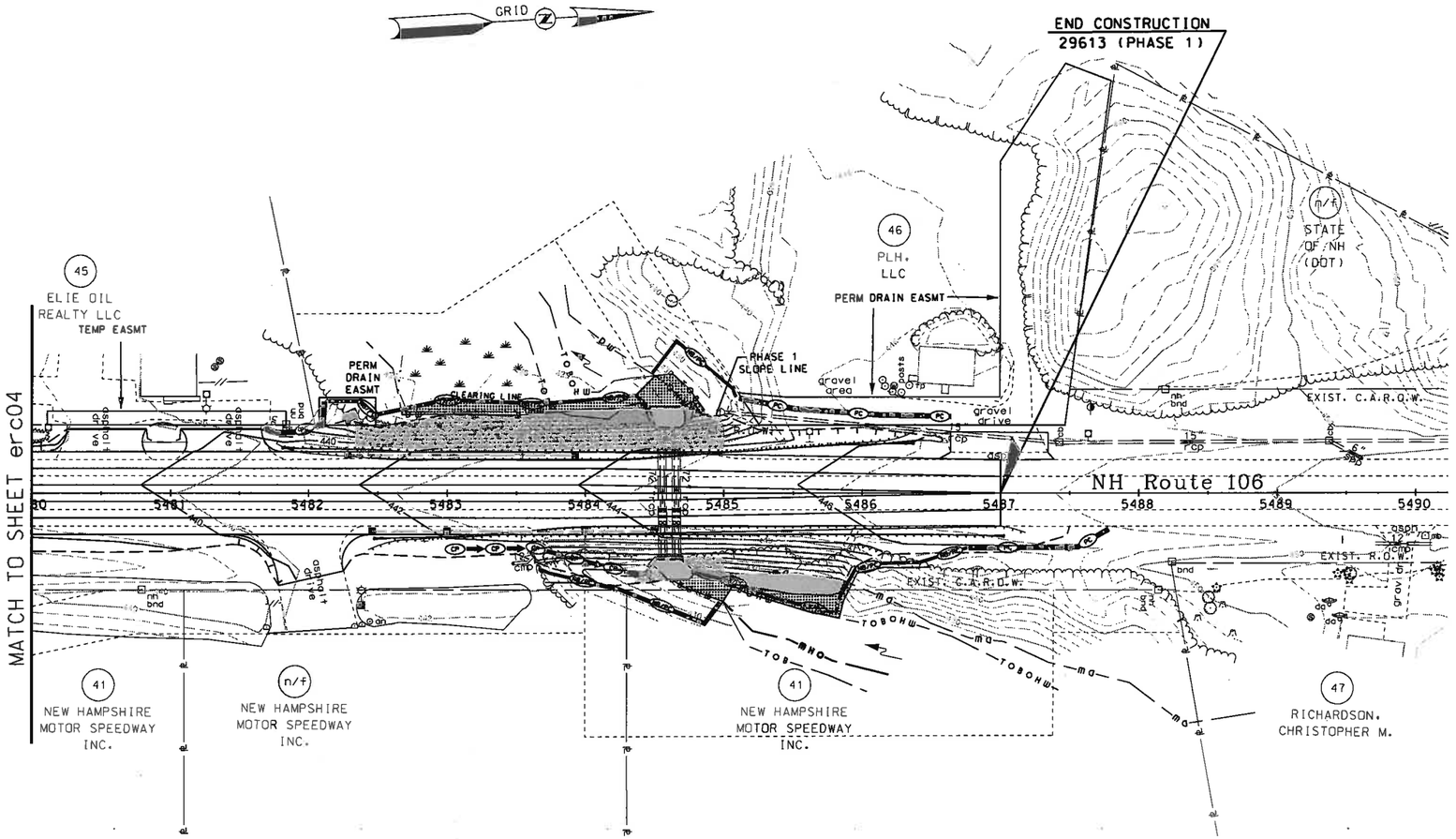
Erosion Control Plans

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
erc04	29613erc	29613	25	27



CONSTRUCTION SEQUENCE NOTES:

1. Proposed treatment pond at Sta 5488 Lt will be constructed under Phase 2 (Project 29613A). No change to the existing drainage system outletting at Sta 5485 Lt is required for Phase 1 construction.

2. At the end of Phase1, proposed roadway base, slopes, and guardrail will be constructed to accommodate the ultimate pavement width to be constructed under Phase 2.

3. Twin 72" Headwall Construction:
A. Install perimeter controls, including controls along the adjacent slope widening.
B. Install Item 503.10x Water Diversion at the inlet. Baseflow at this location is estimated at 2 cfs.
C. Clean water shall be routed through the existing pipes via a temporary pipe or pump(s).
D. Construct one headwall at a time unless otherwise approved, using the following sequence:
E. Install Item 503.20x Cofferdam around the footing excavation area.
F. Construct footing, headwall and wingwalls.
G. Backfill around headwall and construct adjacent slope widening up to subgrade.
H. Apply temporary slope stabilization if required.

4. Construct East side slope widening (2:1 earth slope).
A. Apply temporary slope stabilization if required.
B. Permanent slope treatment will be humus, seed, mulch, and temporary erosion control matting.

5. Construct West side slope widening (1.5:1 slope).
A. Apply geotextile and stone to subgrade per detail.
B. Apply temporary slope stabilization if required.
C. Permanent slope treatment (on top of the stone) will be humus, seed, mulch, matting, and landscaping.
D. Permanent stabilization shall be installed immediately prior to landscaping, and within the planting seasons specified in Item 650.2 Landscaping.

EROSION CONTROL PLAN LEGEND

- PC — PERIMETER CONTROL
  - SILT FENCE
  - EROSION CONTROL MIX BERM
  - EROSION CONTROL MIX SOX
  - TURBIDITY CURTAIN
  - SHEET PILE
  - COFFER DAM
- NB/PC — NATURAL BUFFER/PERIMETER CONTROL
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  - CLASS D EROSION STONE
  - CLASS C STONE
- CWB — CLEAN WATER BYPASS
  - PUMP THROUGH PIPE
  - DRAIN THROUGH PIPE OR CHANNEL

50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	STATION	DATE

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STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

Erosion Control Plans

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
erc05	29613erc	29613	26	27

REVISIONS AFTER PROPOSAL

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		DATE
SDR PROCESSED		
NEW DESIGN	CAC	12/2017
SHEET CHECKED	AMC	12/2017
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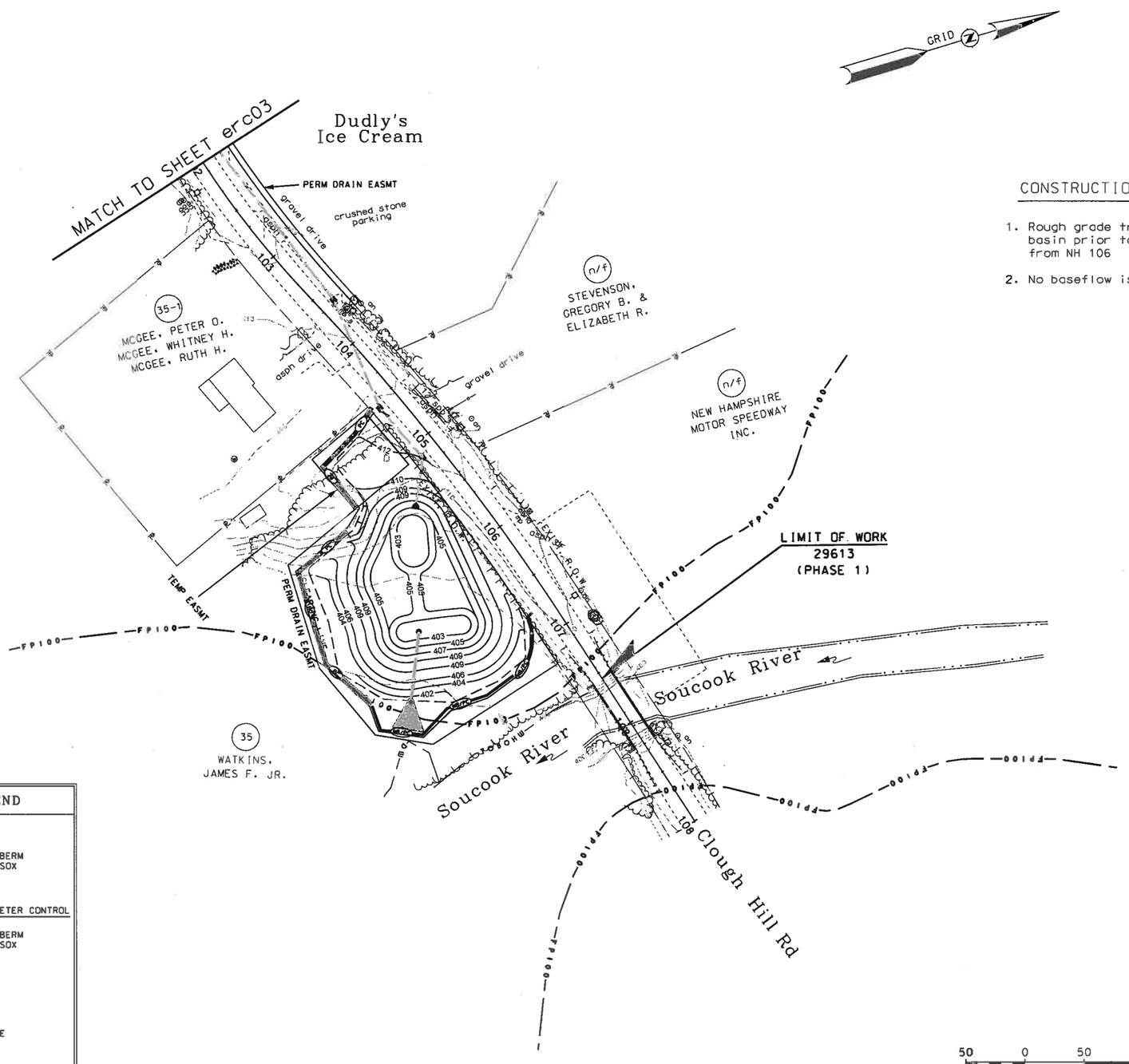

CONSTRUCTION SEQUENCE NOTES:

1. Rough grade treatment area for use as sediment control basin prior to constructing new closed drainage system from NH 106
2. No baseflow is anticipated at this location.

EROSION CONTROL PLAN LEGEND

PC	PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
NB/PC	NATURAL BUFFER/PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
CP CP CP	CHANNEL PROTECTION STONE CHECK DAMS STRAW WATTLES CHANNEL MATTING CLASS D EROSION STONE CLASS C STONE
CWB CWB	CLEAN WATER BYPASS PUMP THROUGH PIPE DRAIN THROUGH PIPE OR CHANNEL

50 0 50 100
SCALE IN FEET

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

Erosion Control Plans

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
erc06	29613erc	29613	27	27